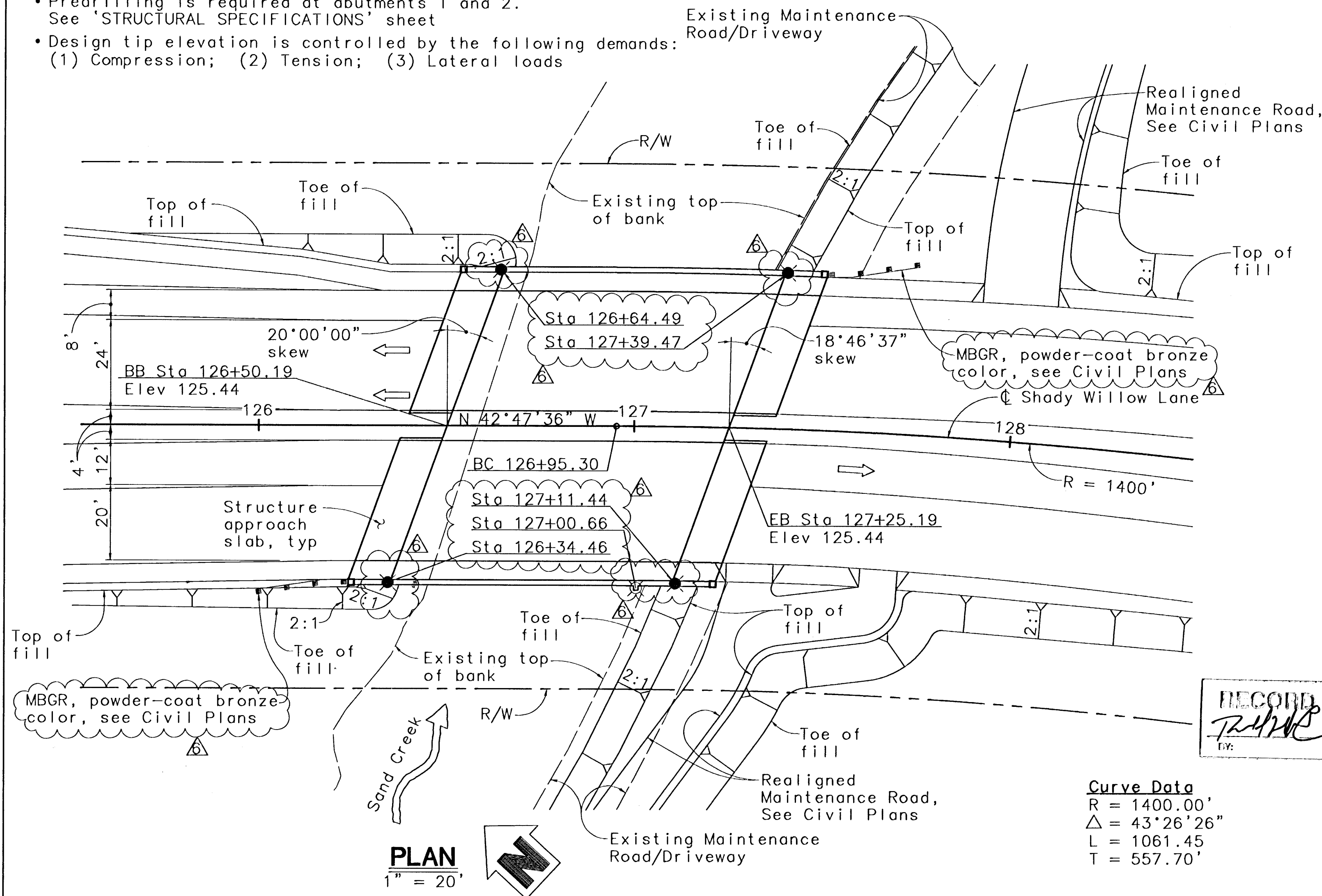


PILE DATA TABLE					
Location	Pile Type	Design Loading (Service)	Nominal Resistance		Specified Tip Elev
			Compression	Tension	
Abutment 1	Class 45 Alt 'X'	90 Kips	180 Kips	0	60.0'(1), 100.0'(3)
Abutment 2	Class 45 Alt 'X'	90 Kips	180 Kips	0	60.0'(1), 100.0'(3)

- Notes:
- Predrilling is required at abutments 1 and 2. See 'STRUCTURAL SPECIFICATIONS' sheet
 - Design tip elevation is controlled by the following demands: (1) Compression; (2) Tension; (3) Lateral loads



RECORD DRAWING
DATE: 6/15/07

Curve Data
R = 1400.00'
Δ = 43°26'26\"/>

TYPICAL SECTION
1/8\"/>

INDEX TO BRIDGE PLANS	
SHEET NO.	TITLE
S-1	GENERAL PLAN
S-2	DECK CONTOURS
S-3	FOUNDATION PLAN
S-4	ABUTMENT LAYOUT
S-5	ABUTMENT DETAILS No. 1
S-6	ABUTMENT DETAILS No. 2
S-7	TYPICAL SECTION
S-8	GIRDER LAYOUT
S-9	PC/PS GIRDER DETAILS No. 1
S-10	PC/PS GIRDER DETAILS No. 2
S-11	STRUCTURE APPROACH SLAB DETAILS
S-12	BARRIER DETAILS No. 1
S-13	BARRIER DETAILS No. 2
S-14	STRUCTURAL SPECIFICATIONS

- Notes:
- For General Notes, see 'DECK CONTOURS' sheet
 - For Caltrans Standard Plans list, see 'DECK CONTOURS' sheet
 - B0-5

Indicates Caltrans Standard Plan sheet No.

-

Indicates Detail No.
 - A

S3

Indicates Section No.

1

S3

Indicates Sheet No. shown on
 - 1

S3

Indicates Detail No.

1

S3

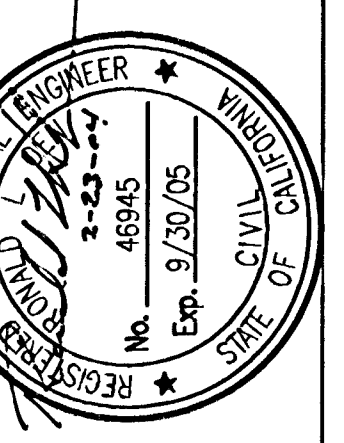
Indicates Sheet No. shown on

- Indicates Signal Pole, total 1
- Indicates Street Light, total 4

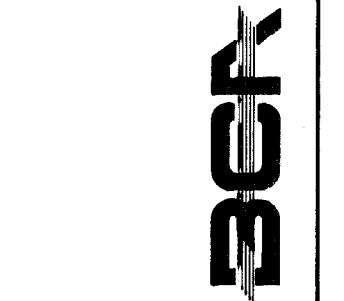
REVIEWED FOR CONFORMANCE WITH CITY OF BRENTWOOD STANDARDS AND REQUIREMENTS. APPROVAL FOR CONSTRUCTION IS SUBJECT TO THE INFORMATION SHOWN HEREIN. THE CITY OF BRENTWOOD AND THE UNDERSIGNED ARE NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY EXIST ON THESE PLANS.

BALWINDER S. GREWAL, CITY ENGINEER
R.C.E. No. 49122

8-14-03
DATE
EXPIRES 9-30-04



DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:	AS SHOWN
JAA	DM	DNH	N/A	N/A
REV	DATE	DESCRIPTION	BY	APPROVED BY
1	12/1/06	REVISIONS		
2	3/2/07	REVISED UTILITY SUPPORT		
3	3/2/07	REVISED UTILITY SUPPORT		
4	3/2/07	REVISED UTILITY SUPPORT		
5	3/2/07	REVISED UTILITY SUPPORT		
6	3/2/07	REVISED UTILITY SUPPORT		
7	3/2/07	REVISED UTILITY SUPPORT		
8	3/2/07	REVISED UTILITY SUPPORT		
9	3/2/07	REVISED UTILITY SUPPORT		
10	3/2/07	REVISED UTILITY SUPPORT		
11	3/2/07	REVISED UTILITY SUPPORT		
12	3/2/07	REVISED UTILITY SUPPORT		
13	3/2/07	REVISED UTILITY SUPPORT		
14	3/2/07	REVISED UTILITY SUPPORT		
15	3/2/07	REVISED UTILITY SUPPORT		
16	3/2/07	REVISED UTILITY SUPPORT		
17	3/2/07	REVISED UTILITY SUPPORT		
18	3/2/07	REVISED UTILITY SUPPORT		
19	3/2/07	REVISED UTILITY SUPPORT		
20	3/2/07	REVISED UTILITY SUPPORT		



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STRUCTURAL ENGINEERS
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San Francisco, CA 94126
415-268-5018

GENERAL PLAN
SHADY WILLOW LANE BRIDGE
BRENTWOOD
CALIFORNIA

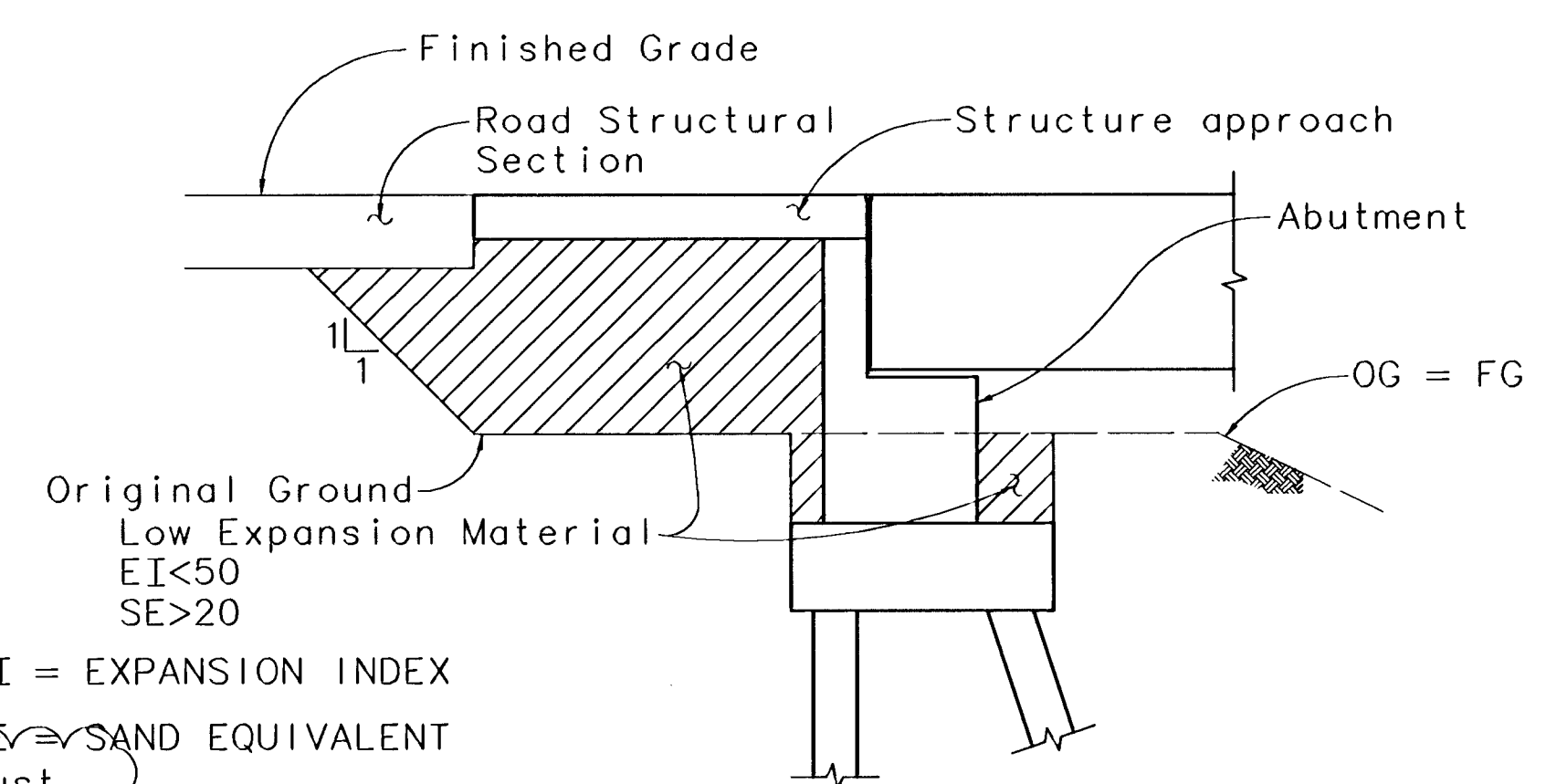
SHEET NUMBER
OF SHEETS
DRAWING NO.
2002300-1



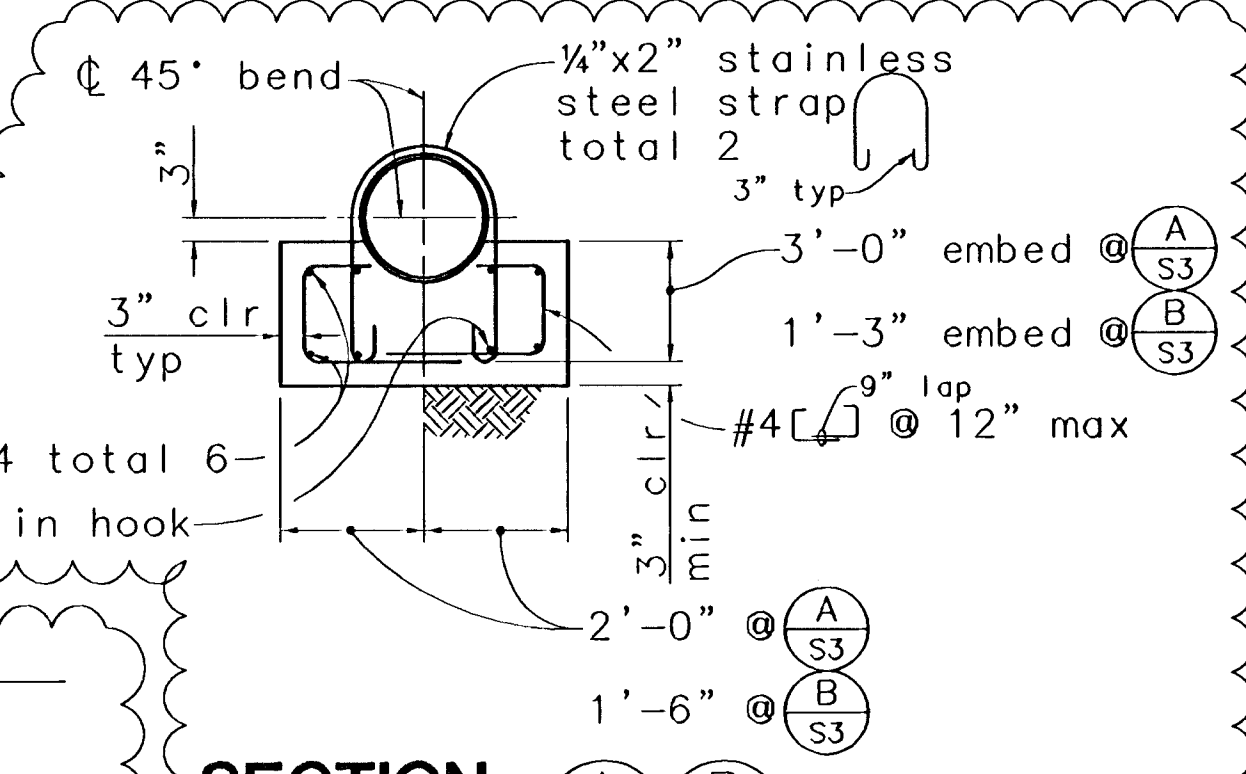
2002300-2
8603

Flexible Expansion Joint Notes:
1. Joint to be located 3'-0" max beyond Abutment backwall
2. Joint to be installed per manufacturer specified laying length
3. Joint to be preset to 50% expansion and 50% contraction
4. Joint shall be installed in 4'-0" wide trench and backfilled with 3/8" pea gravel 1'-0" min around

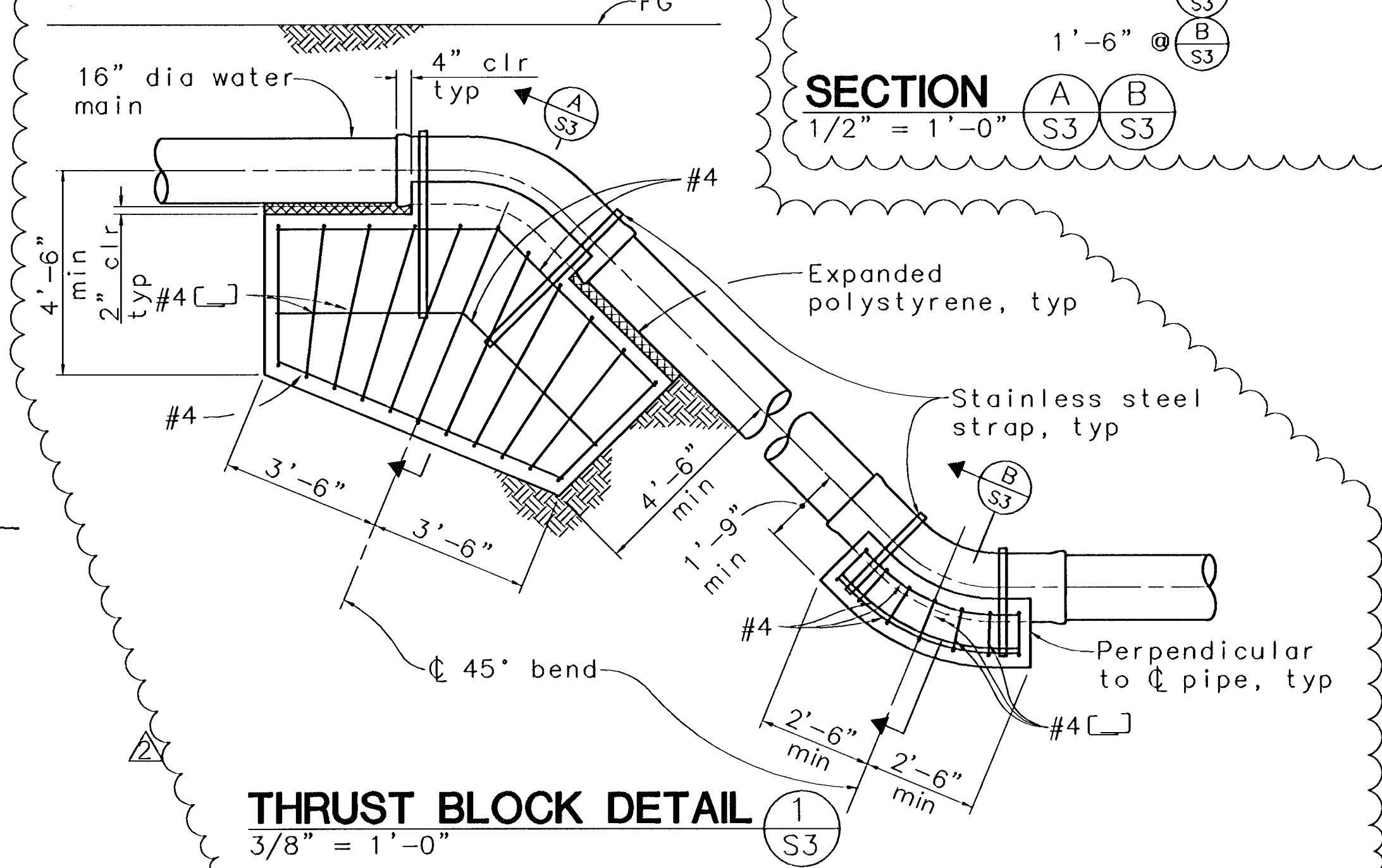
- Notes:
- Indicates bottom of footing elevation
 - + Indicates spot elevation
 - and □ Indicates pile, not all piles shown
 - Utilities shown are for illustrative purposes only, verify with Civil Plans
 - For Bench Mark and Datum, see Civil Plans



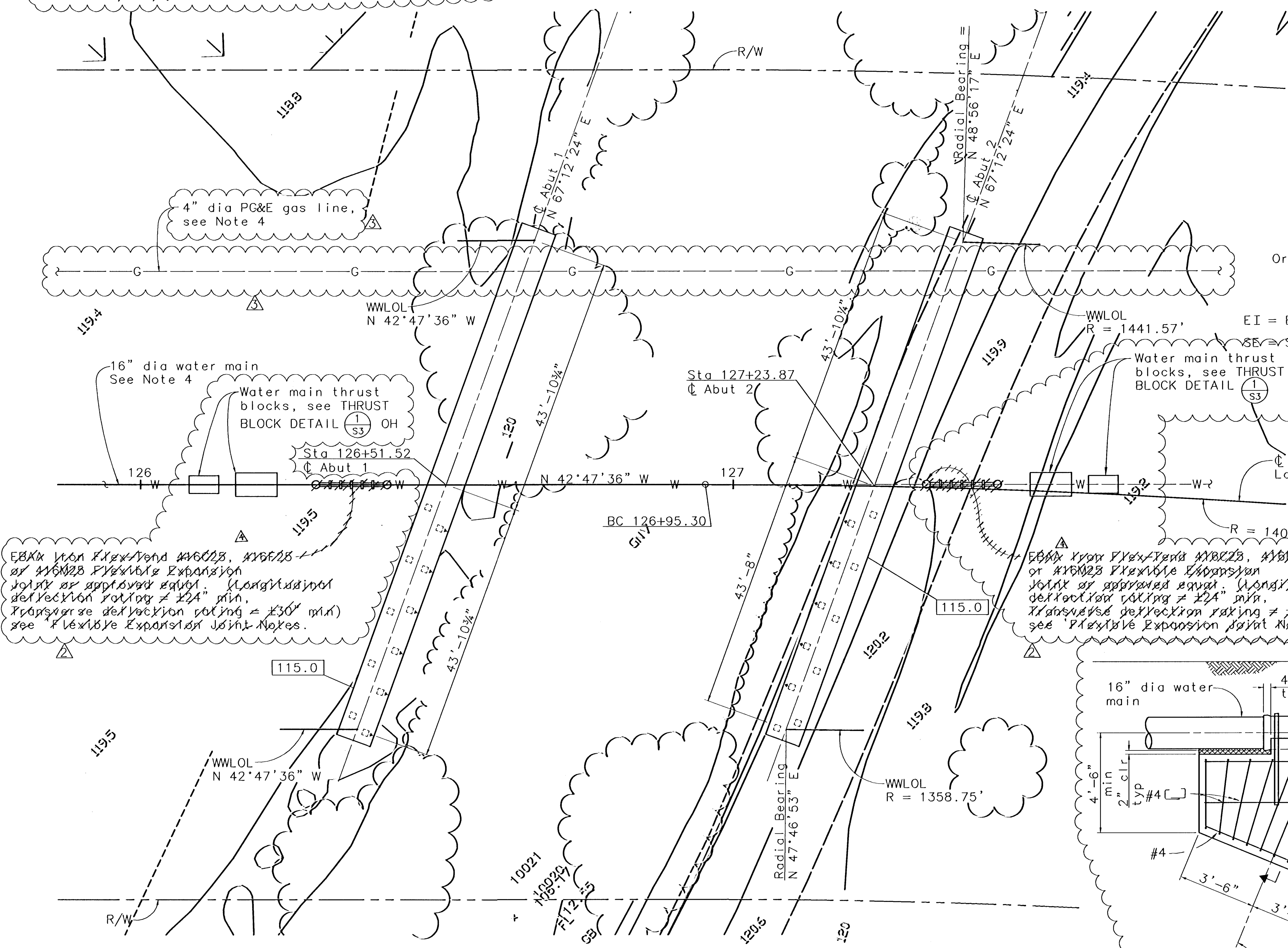
EXPANSIVE SOIL EXCLUSION ZONE DETAIL
NO SCALE



SECTION
1/2" = 1'-0"



THRUST BLOCK DETAIL
3/8" = 1'-0"



FOUNDATION PLAN
1" = 10'

RECORD DRAWING
BY: *[Signature]* DATE: 3/28/07

Curve Data
R = 1400.00'
Δ = 43°26'26"
L = 1061.45'
T = 557.70'

PROFESSIONAL ENGINEER
JAMES L. JAA
No. 46945
Exp. 9/30/07
CIVIL
STATE OF CALIFORNIA

DESIGNED BY: JAA
DRAWN BY: DM
CHECKED BY: DHN
SCALE: N/A
APPROVED BY: [Signature]
REV. DATE: [Table]

RECORD DRAWING REVISIONS
1. 1/28/04 ADD PILE AND NORTH SIDEWALK UTILITIES
2. 1/28/04 THRUST BLOCK & EXPANSION JOINT
3. 1/28/04 100% FINAL SUBMITTAL
4. 0. 2/20/04 100% DRAFT (UNCHECKED DETAILS)

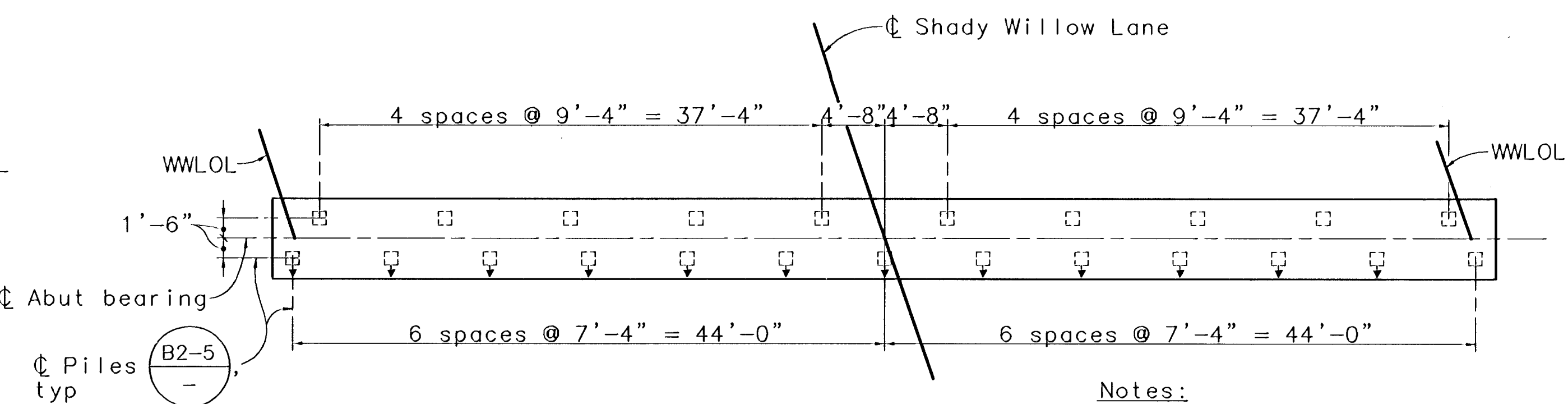
BY: [Table]

DESCRIPTION: [Table]

BIGGS CARDOSA ASSOCIATES, INC.
STRUCTURAL ENGINEERS
1871 The Alameda, Suite 200
San Jose, California 95126
408-256-5515


FOUNDATION PLAN
SHADY WILLOW LANE BRIDGE
BRENTWOOD CALIFORNIA
SHEET NUMBER **S-3**
OF SHEETS
DRAWING NO. 2002300-3

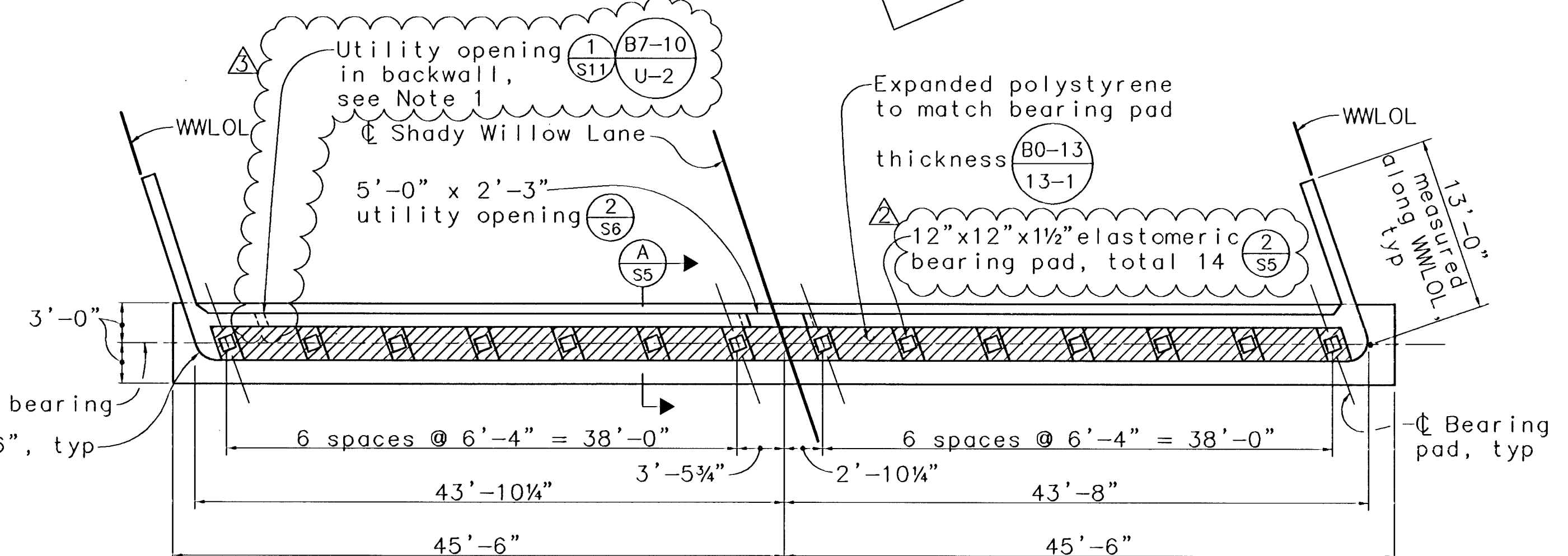
As Built 3/28/07 8603 3/4



ABUTMENT 2 FOOTING PLAN

$$1/8'' = 1' - 0$$

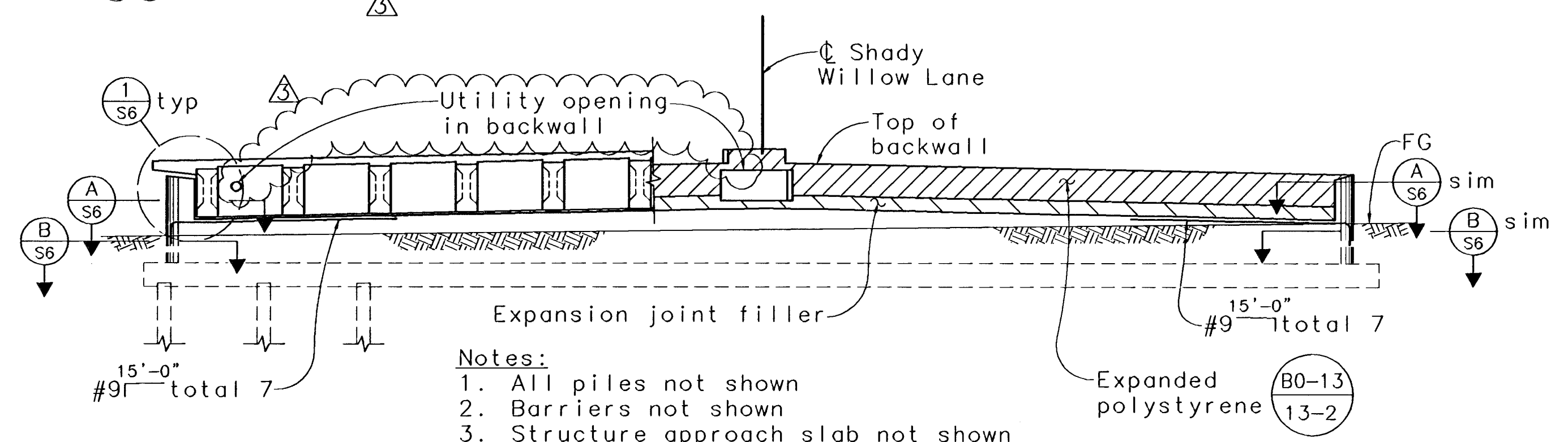
- Notes:
1. Indicates vertical pile
 2.  Indicates 1:3 battered pile



Note:

1. At the option of the Contractor, the utility opening can be a 10" formed hole sealed with mortar after tightly wrapping utility with 2 layers of 15 lb building paper

ABUTMENT 2 PLAN

$$1/8'' = 1' - 0$$


ABUTMENT 2 ELEVATION

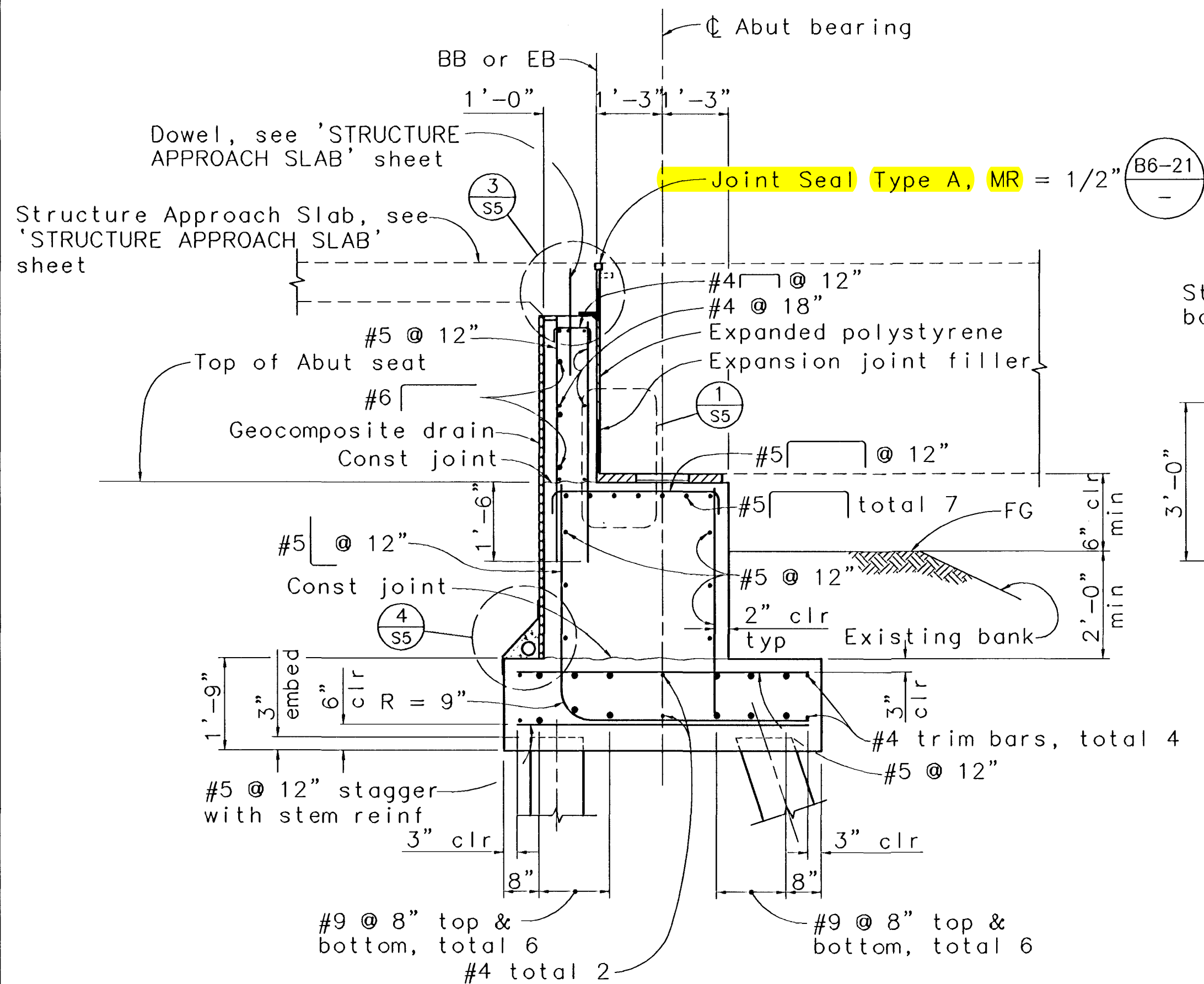
$$1/8'' = 1' - 0''$$

Notes:

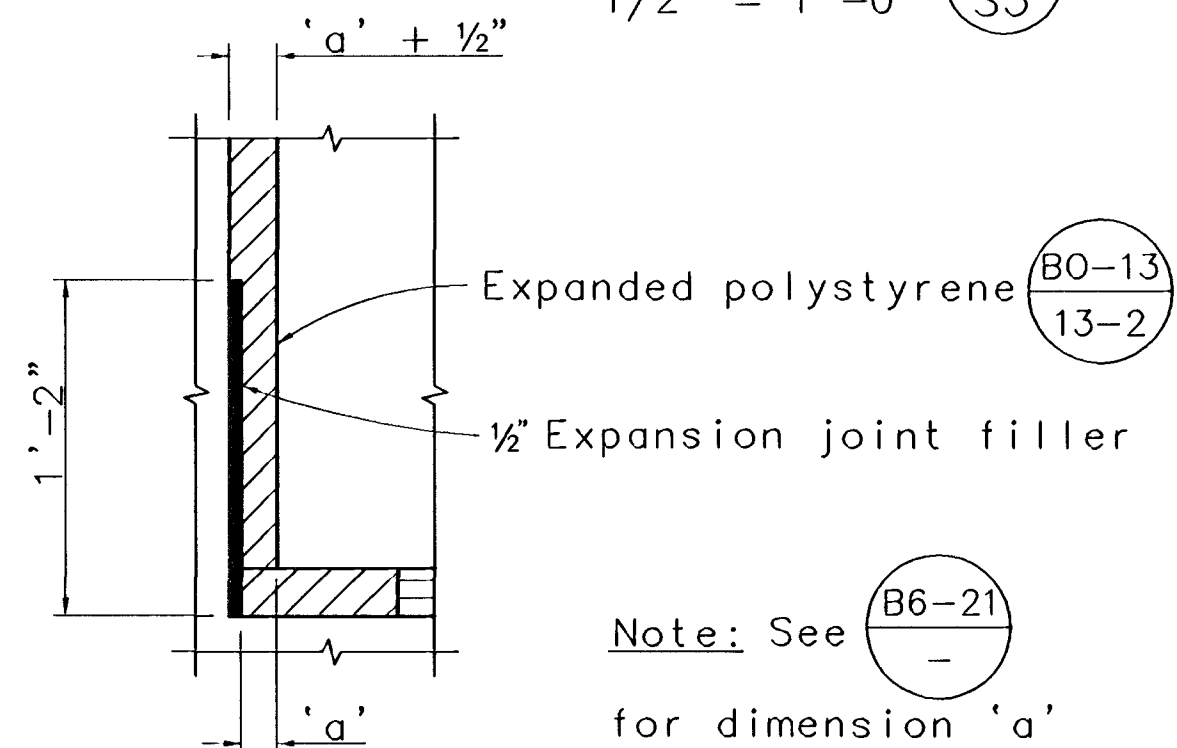
1. All piles not shown
2. Barriers not shown
3. Structure approach slab not shown

SHEET NUMBER
S-4
OF SHEETS
DRAWING NO.
2002300-4

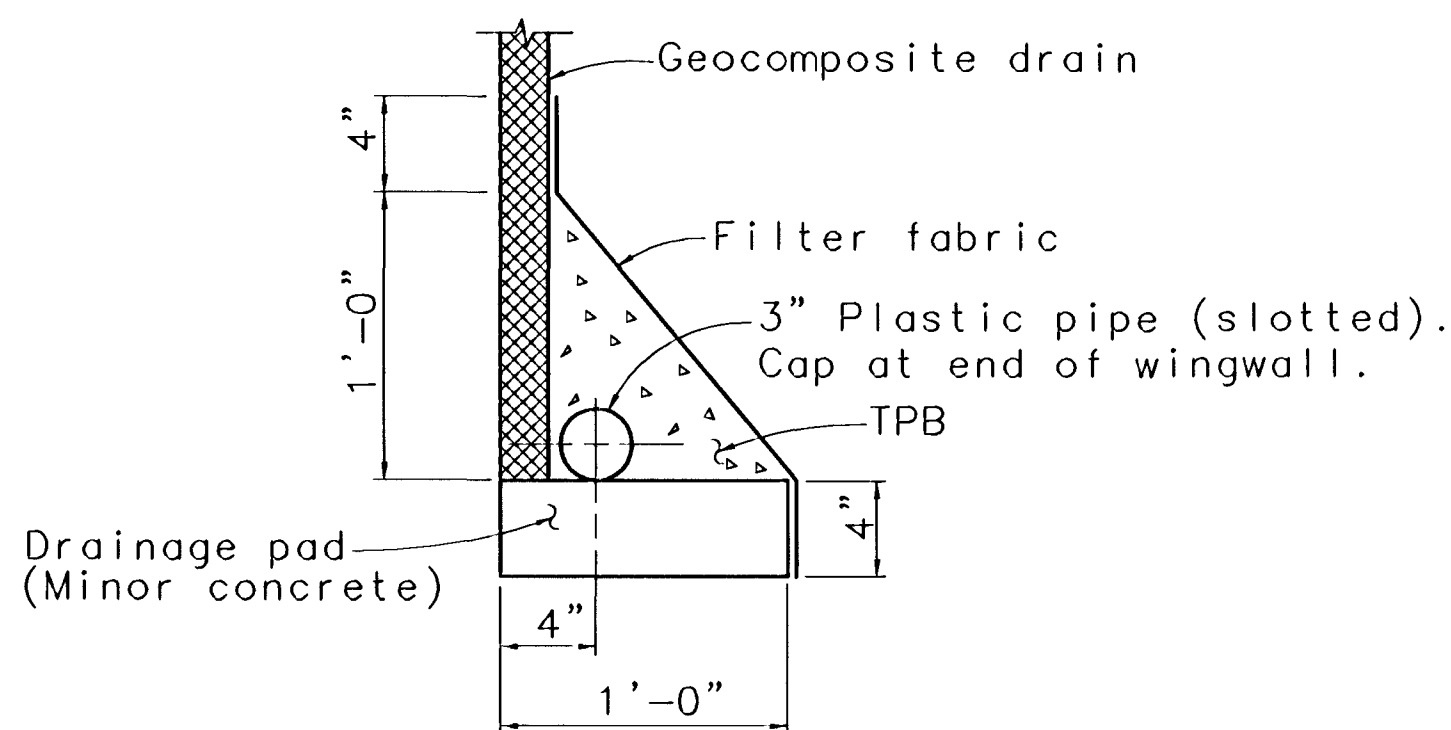
As Built 3/28/01 8603 4/14



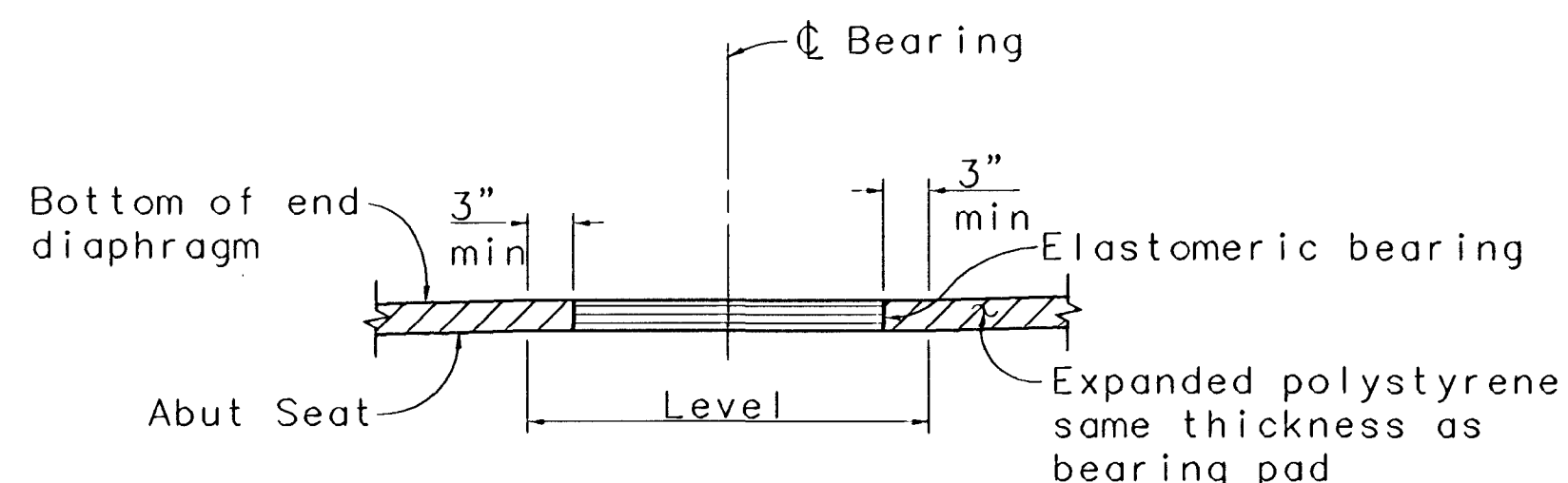
SECTION A
1/2" = 1'-0" S5



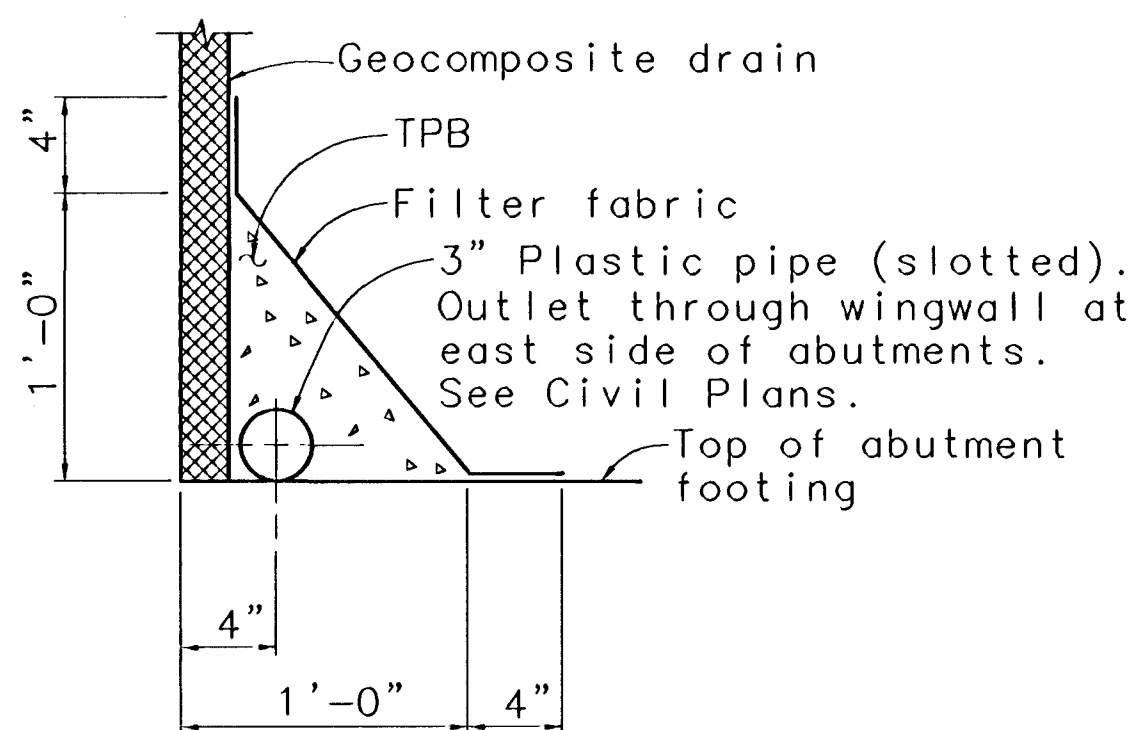
DETAIL 1
NO SCALE S5



WITHOUT FOOTING
(@ Wingwalls)

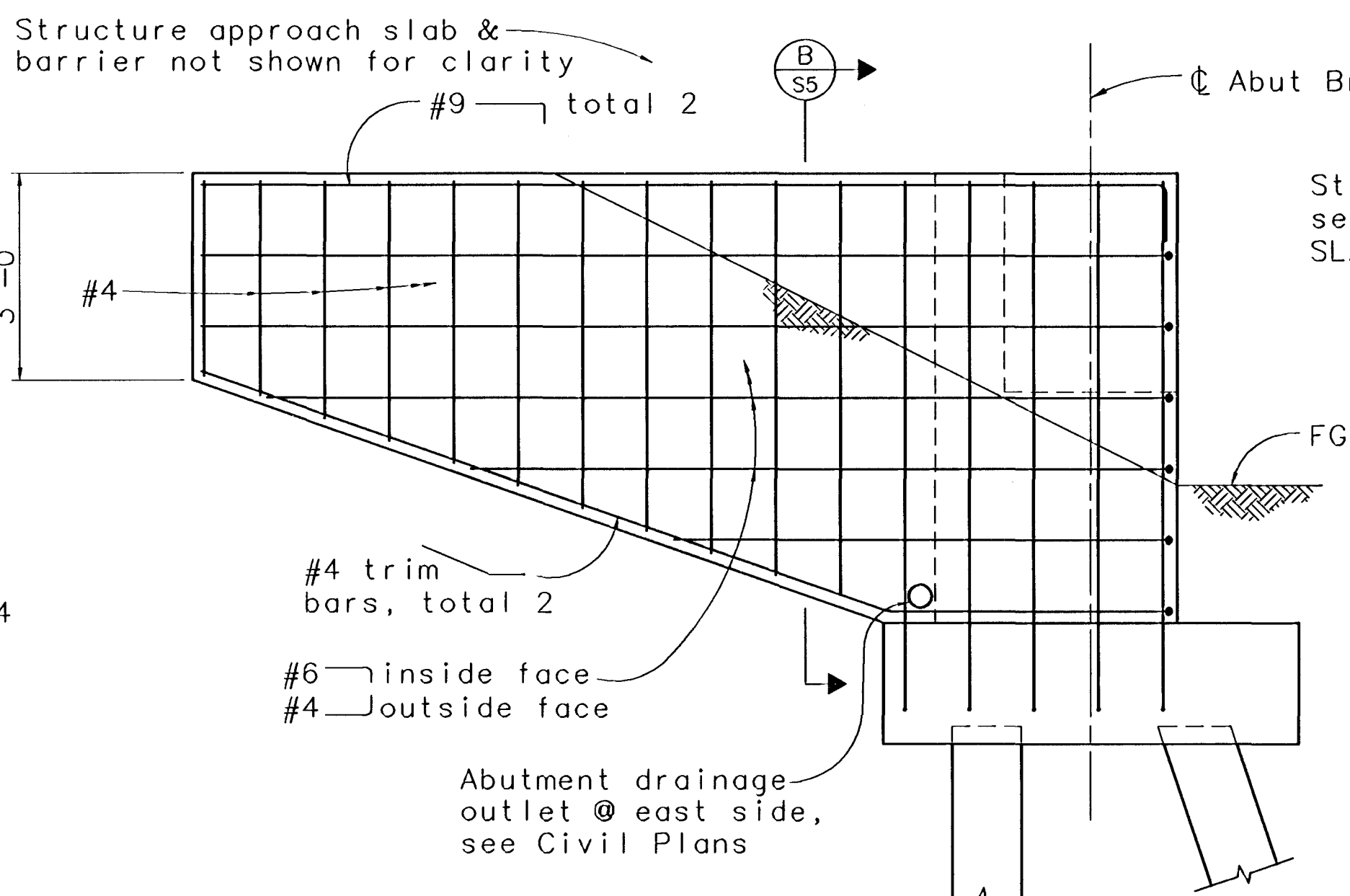


SECTION THRU BEARING 2
1" = 1'-0" S5

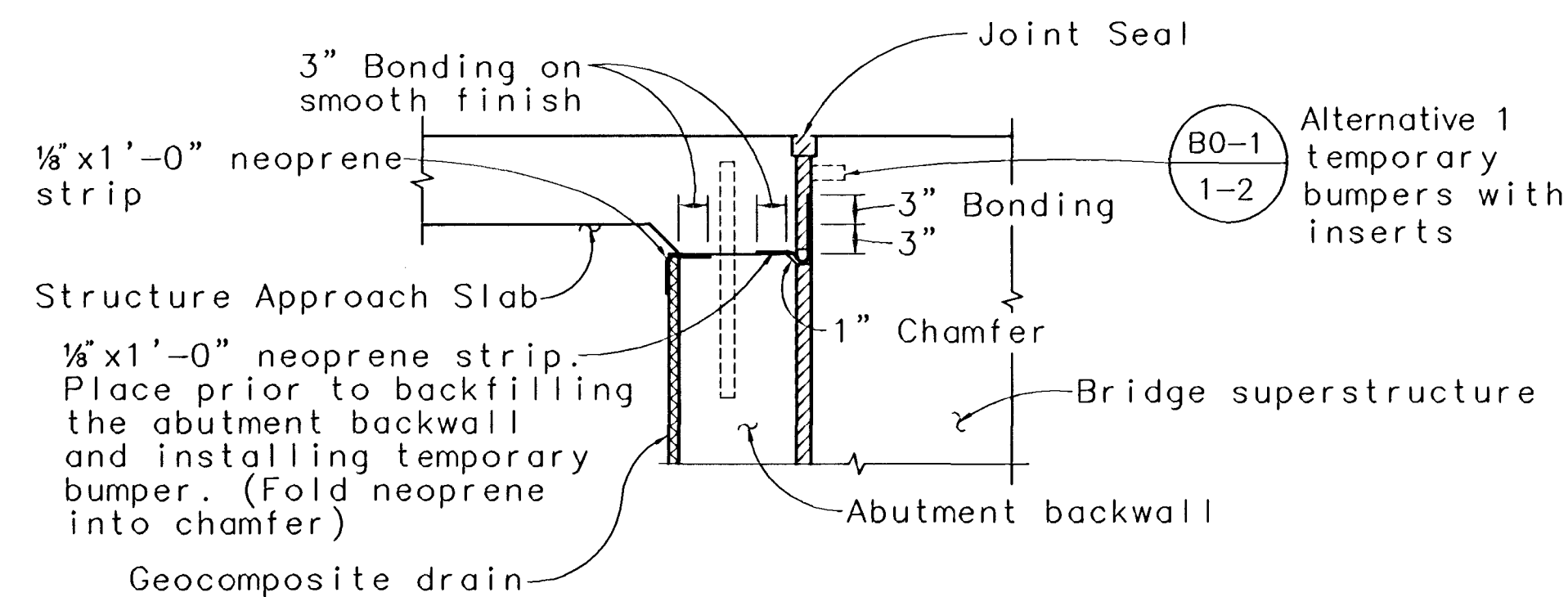


WITH FOOTING
(@ Abutments)

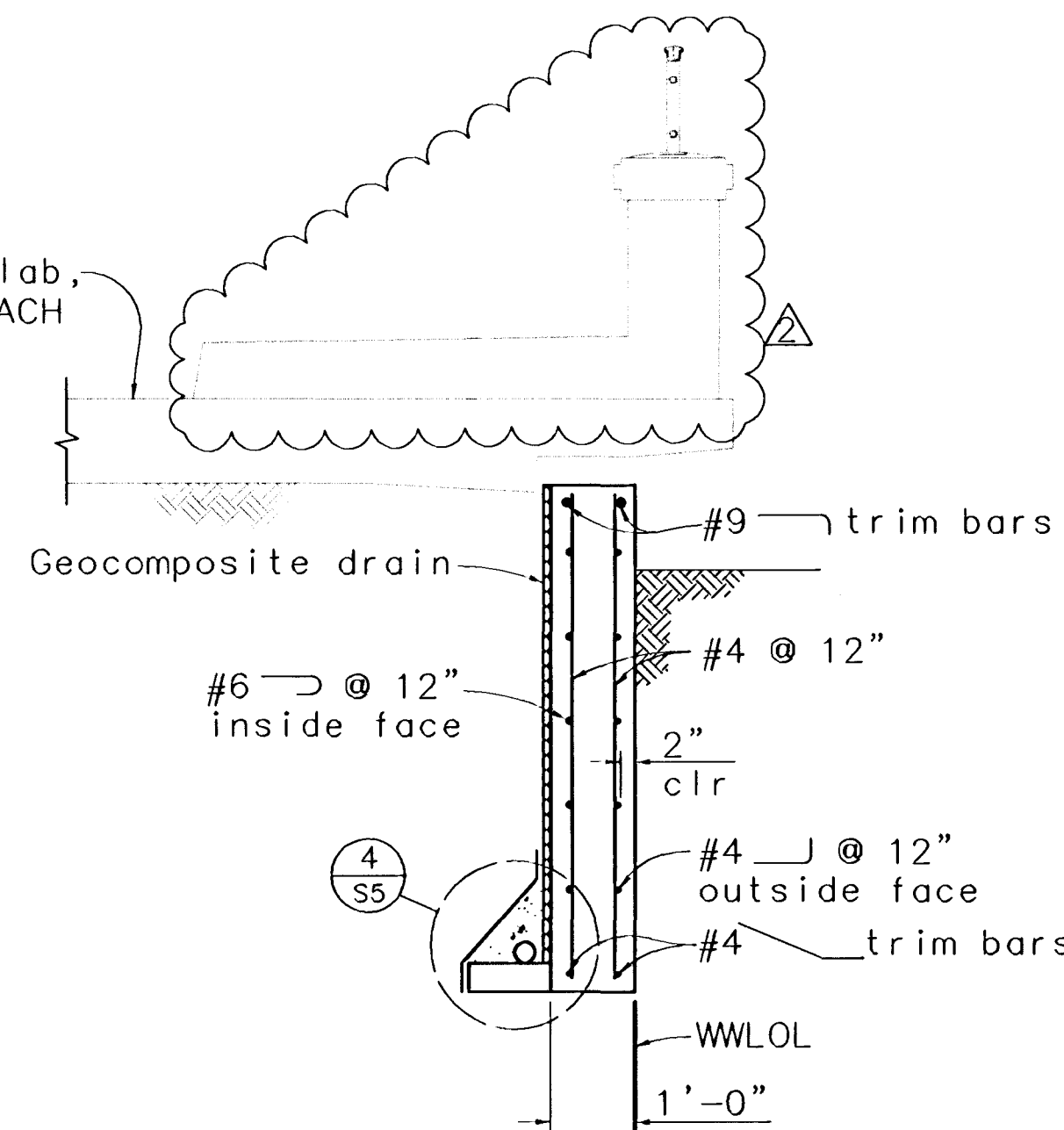
DRAINAGE DETAILS 4
1 1/2" = 1'-0" S5



WINGWALL ELEVATION
1/2" = 1'-0"

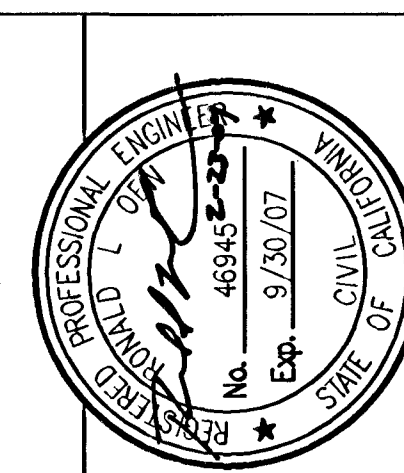


JOINT PROTECTION DETAIL 3
3/4" = 1'-0" S5



SECTION B
1/2" = 1'-0" S5

NO CHANGES
RECORD DRAWING
BY: *[Signature]* DATE: 3/28/07



DESIGNED BY:	DRAWN BY:	CHECKED BY:	SCALE:	AS SHOWN
JAA	KEH	DHN	N/A	BY
REV.	DATE	DESCRIPTION	BY	APPROVED
1	3/28/07	FINAL SUBMITTAL	RLO	
2	3/28/07	100% DRAFT (UNCHECKED DETAILS)	RLO	

BIGGS CARDOSA ASSOCIATES INC.
STRUCTURAL ENGINEERS

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San Jose, California 95126
408-266-5515

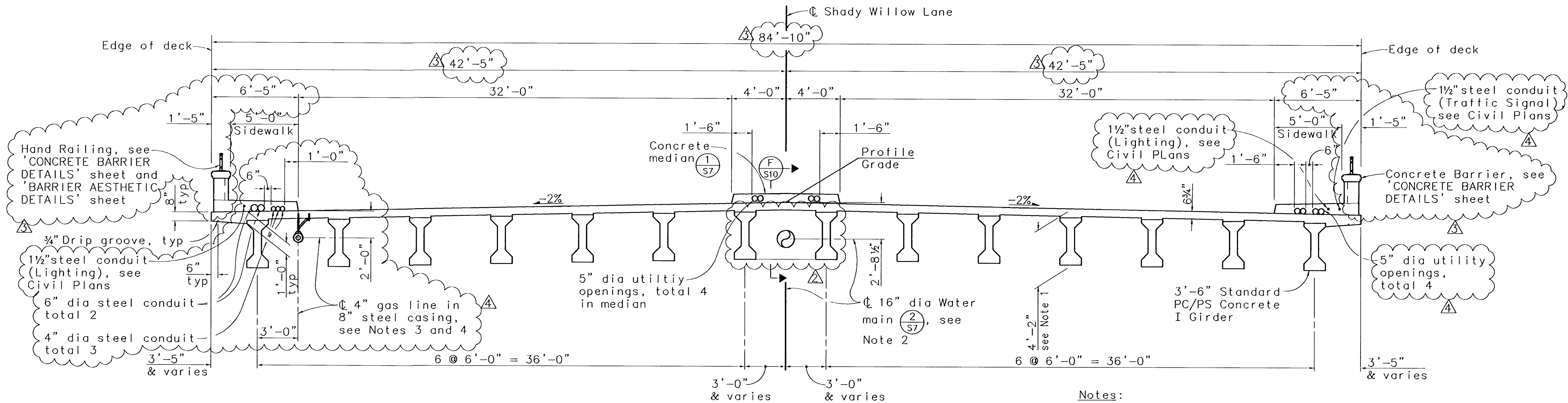
ABUTMENT DETAILS No. 1

SHADY WILLOW LANE BRIDGE

CALIFORNIA

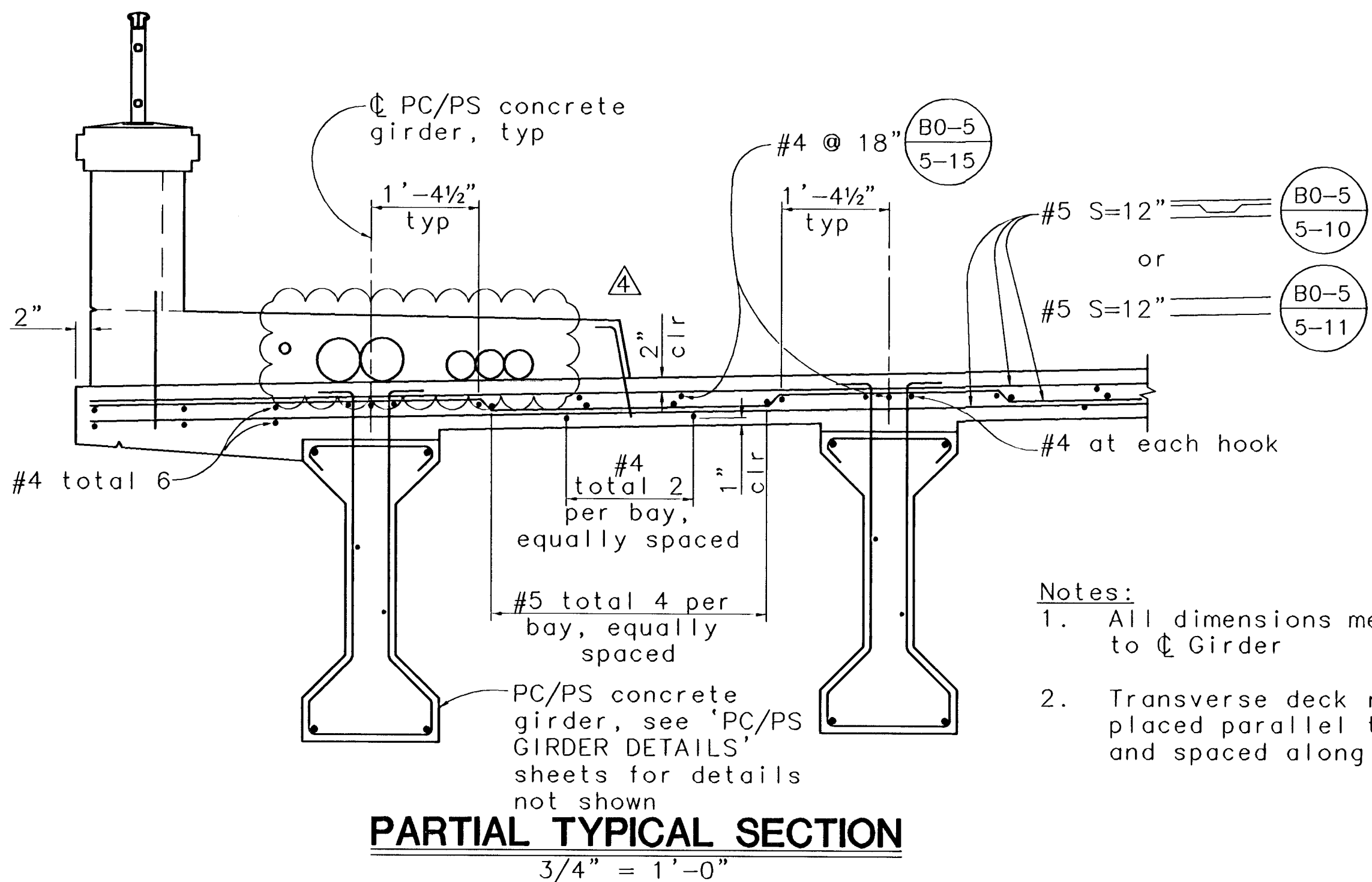
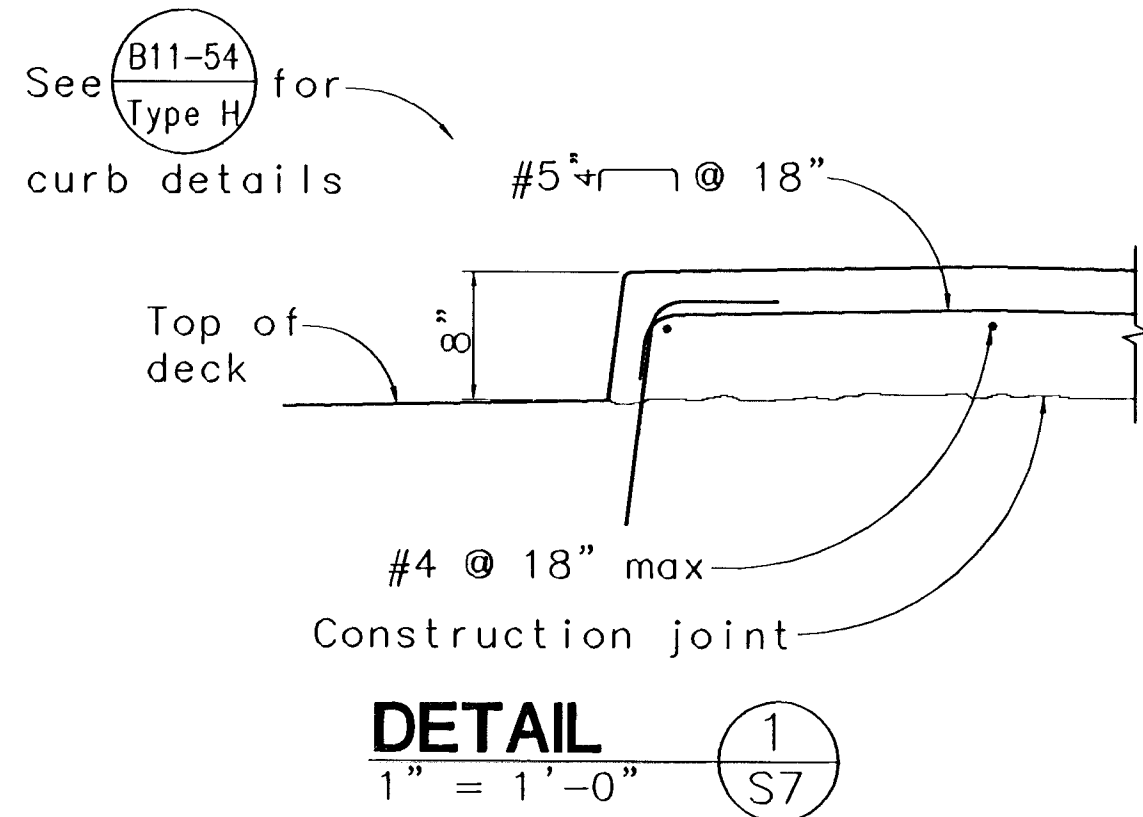
BRENTWOOD

SHEET NUMBER
S-5
OF SHEETS
DRAWING NO.
2002300-5



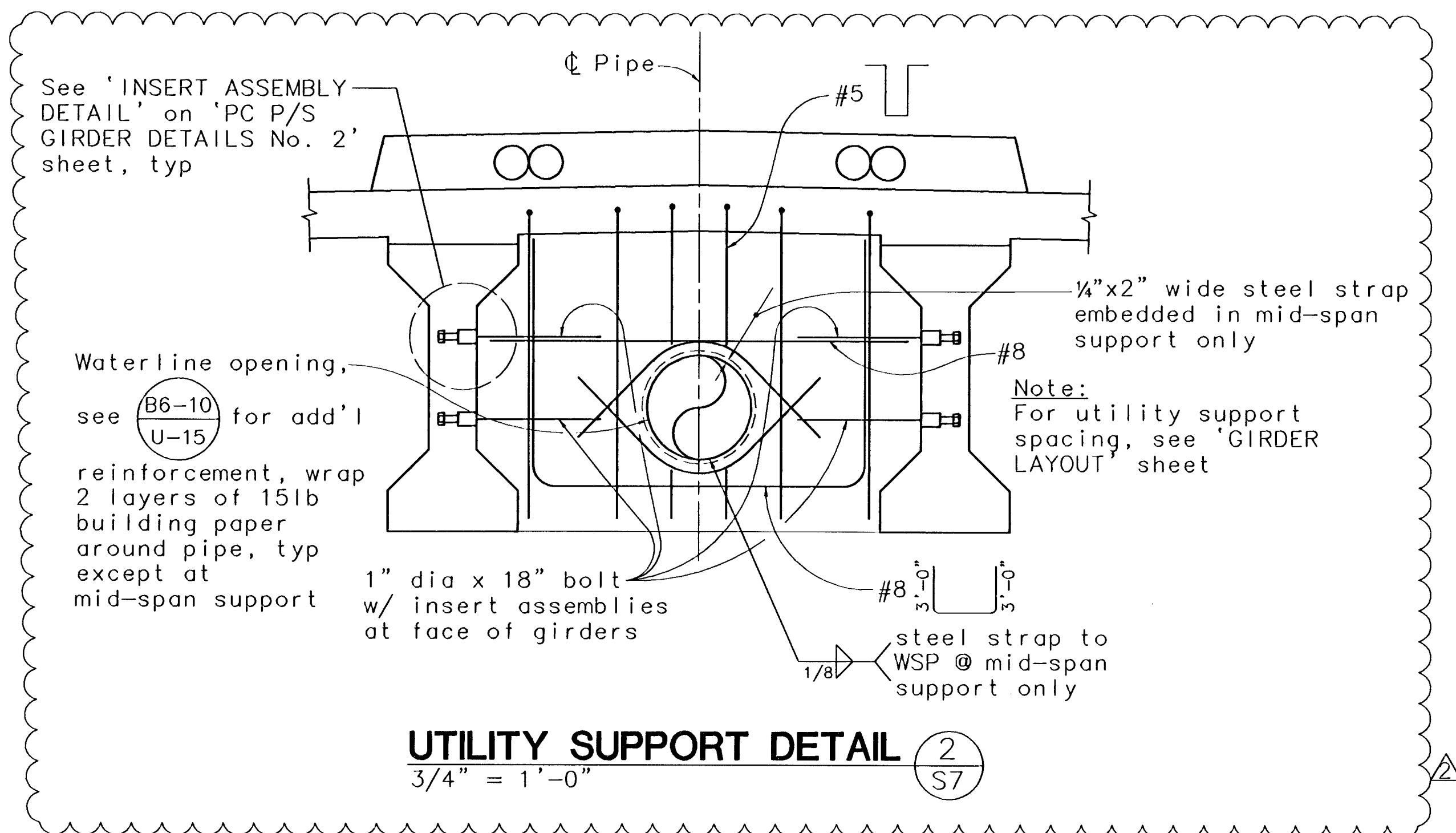
TYPICAL SECTION
1/4" = 1'-0"

- Notes:**
- Girder thickness value measured at abutment
 - See Civil Plans for water main alignment, expansion/deflection fittings, and thrust blocks off the bridge.
 - Utility casing shall be 8" steel seamless, bare, grade 'B', 0.322 W.T., O.D. 8.625" per gas Standard A-15, Code 01-1689.
 - Pipe hanger shall be Super Strut (overhead mounting) Fig. C-710 or Grinnel Fig. 260 with 3/8" rod size per G.S.&S. A-83. Pipe hangers to be placed at 10'-0" maximum spacing.

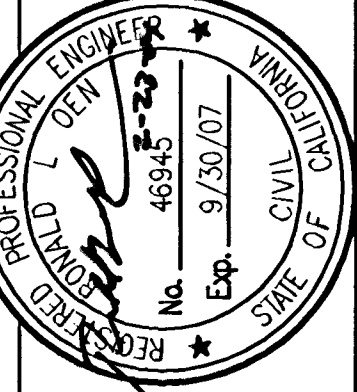
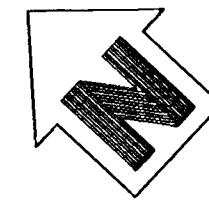


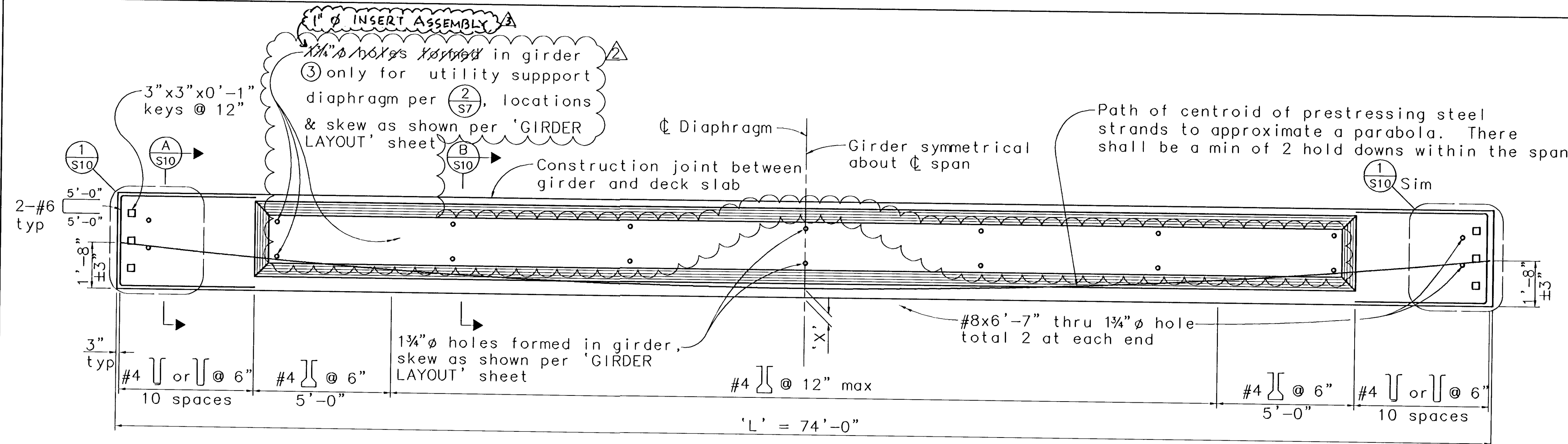
- Notes:**
- All dimensions measured normal to \perp Girder
 - Transverse deck reinf shall be placed parallel to \perp Abutment and spaced along \perp Girder

NO CHANGES
RECORD DRAWING
BY: *R.H.W.* DATE: 3/28/07



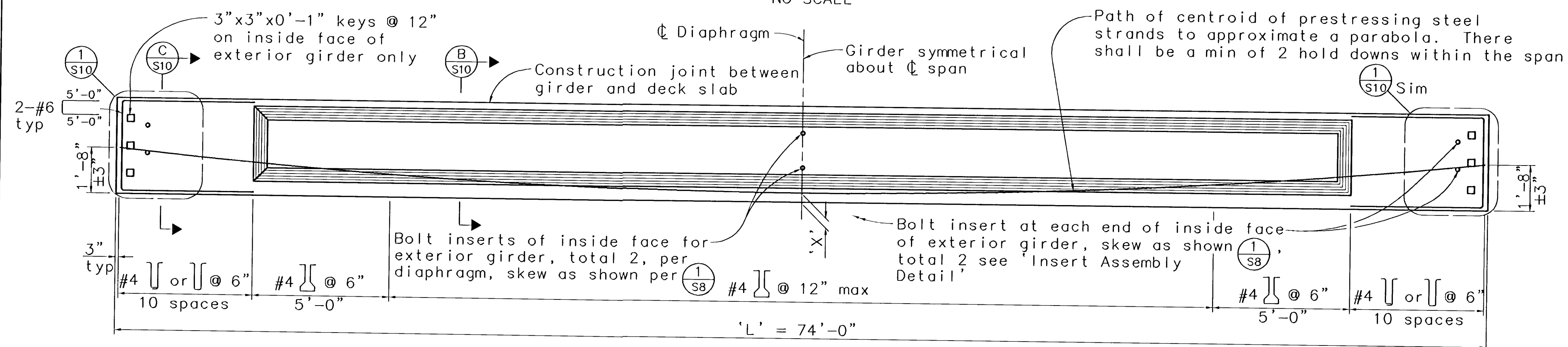
		DESIGNED BY: JAA	DRAWN BY: DM	CHECKED BY: DHN	SCALE: AS SHOWN
		REV. DATE	DESCRIPTION	BY	APPROVED BY
BIGGS CARDOSA ASSOCIATES INC. STRUCTURAL ENGINEERS 1871 The Alameda, Suite 200 San Jose, CA 95126 408-296-5515					
TYPICAL SECTION					
SHADY WILLOW LANE BRIDGE					
CALIFORNIA					
BRENTWOOD					
SHEET NUMBER S-7 OF SHEETS					
DRAWING NO. 2002300-7					
8603					





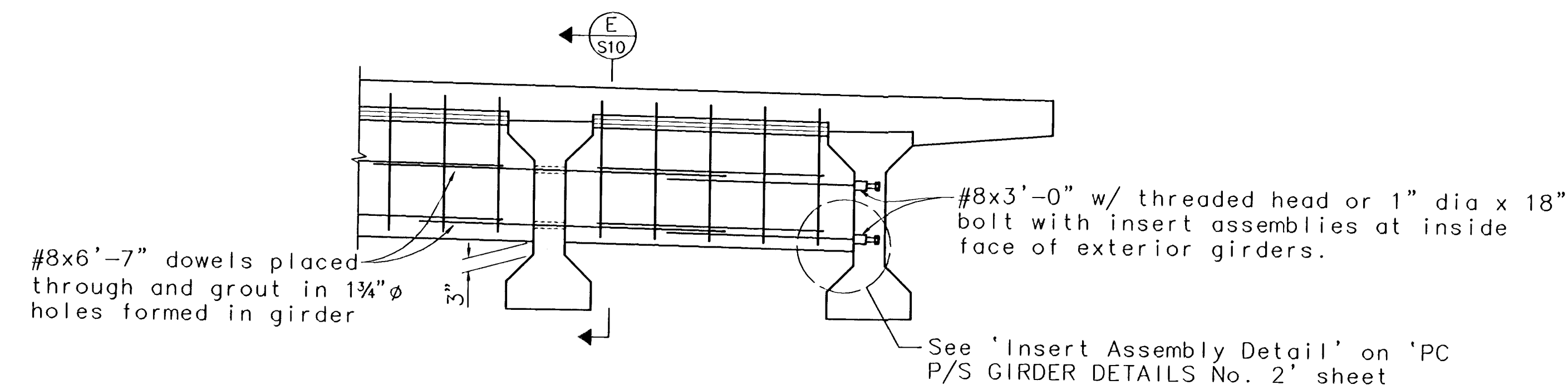
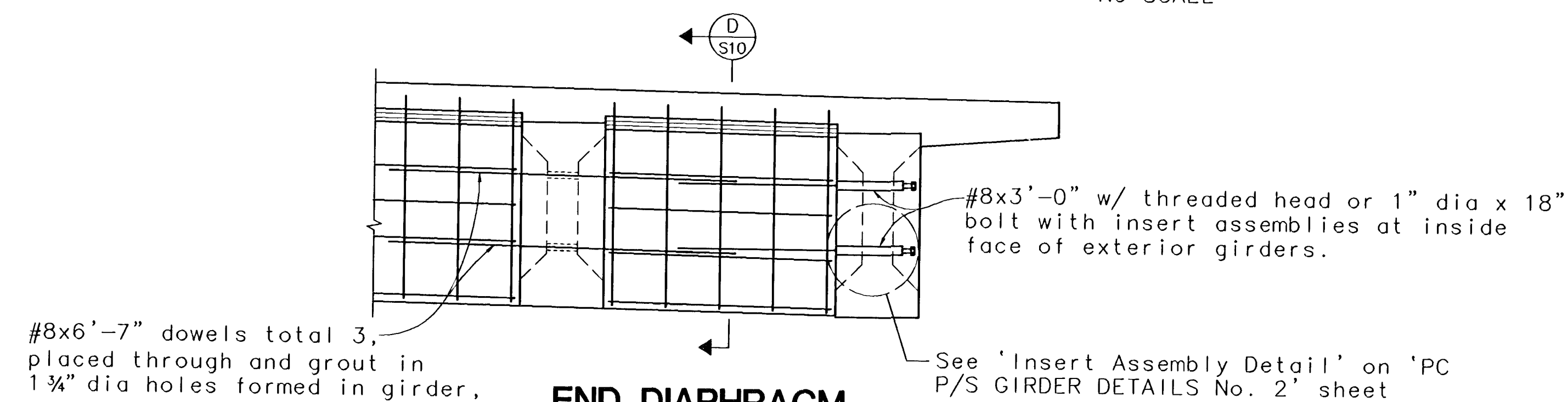
INTERIOR GIRDER ELEVATION

NO SCALE



EXTERIOR GIRDER ELEVATION

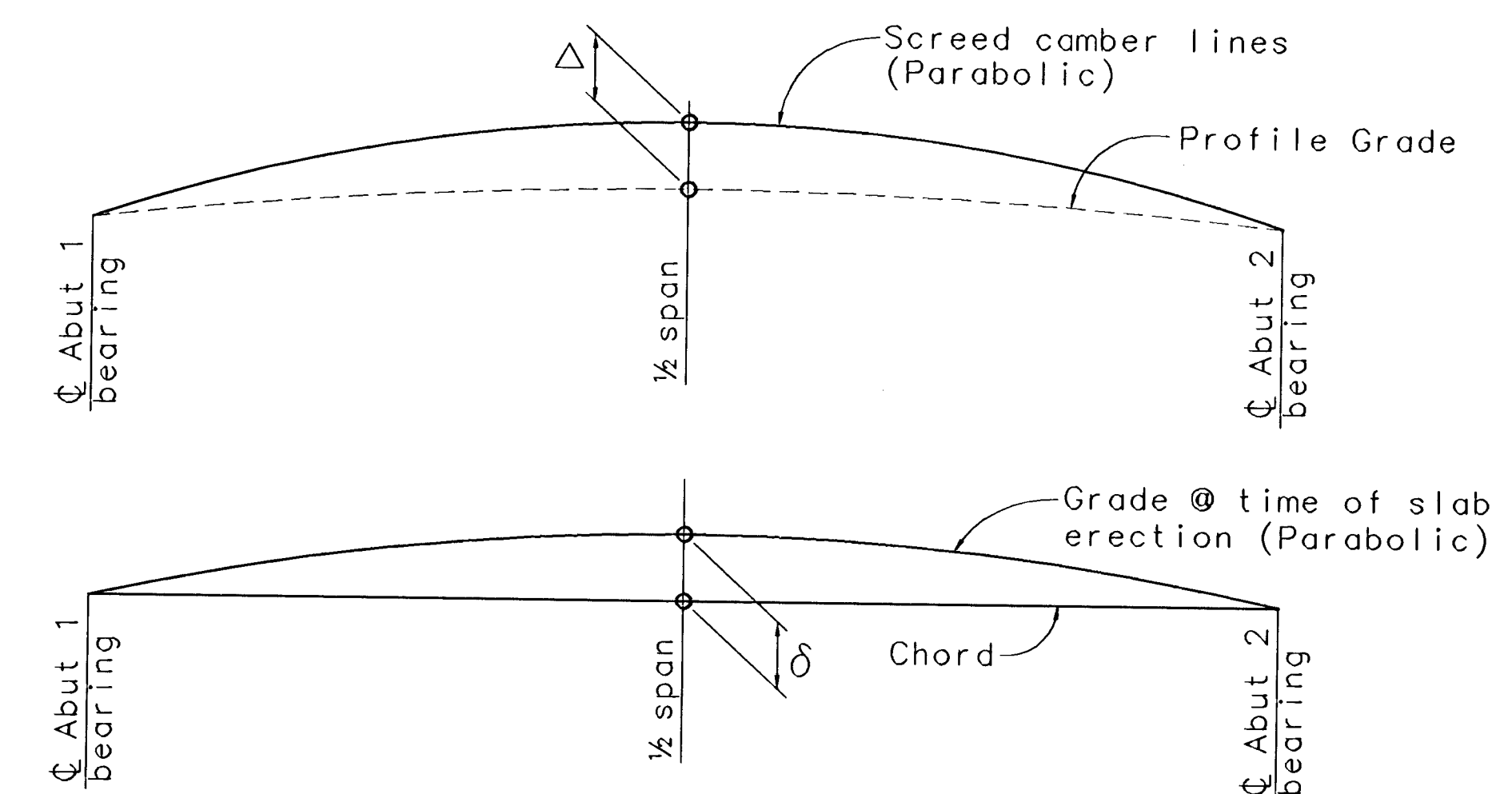
NO SCALE



PRESTRESSING NOTES

1. Design based on 270 ksi low relaxation $\frac{1}{2}$ "Ø strand
2. Working force: the force required at center of span after all losses
3. Number of strands = $\frac{P}{As[(0.75 \times 270) - 35]}$
4. Concrete strength: f'_{ci} is at time of initial stressing
 f'_c is at 28 days, psi
5. Girder designed for Pretensioning
6. Total number of Precast Girders : 12 Interior Girders
2 Exterior Girders
7. The Contractor shall measure δ prior to girder erection. The Engineer shall be notified if δ is not within the tolerances given in the 'Camber / Deflection Table'

Girder location or designation and length	P = working force in kips		Concrete strength	
	'X'		f'ci (psi)	f'c (psi)
Interior	4½"	560	5,000	5,000
Exterior	4½"	560	5,000	5,000



CAMBER / DEFLECTION TABLE

δ = P/S deflection & PC girder deflection @ time of erection, see Note 7	2.00" \pm 0.50" max
Δ = Screed camber	2.34"

CAMBER / DEFLECTION DIAGRAM

NO SCALE

RECORD DRAWING

BY: Reid 3/28/0

8603
Bridge
PC/PS Girder Details (1) (as-built)

REV.	DATE	DESCRIPTION	BY	APPROVED BY	SCALE:
1	2/26/03	RECORD DRAWING REVISIONS	RLO		AS SHOWN
2	3/10/03	REVISED UTILITY SUPPORT	RLO		
3	3/10/03	REVISED UTILITY SUPPORT	RLO		
4	3/10/03	100% DRAFT (UNCHECKED DETAILS)	RLO		

COIN

**BIGGS CARDOSA
ASSOCIATES INC**
STRUCTURAL ENGINEERS

San Jose, California 95126
408-296-5515

PC/PS GIRDER DETAILS No. 1

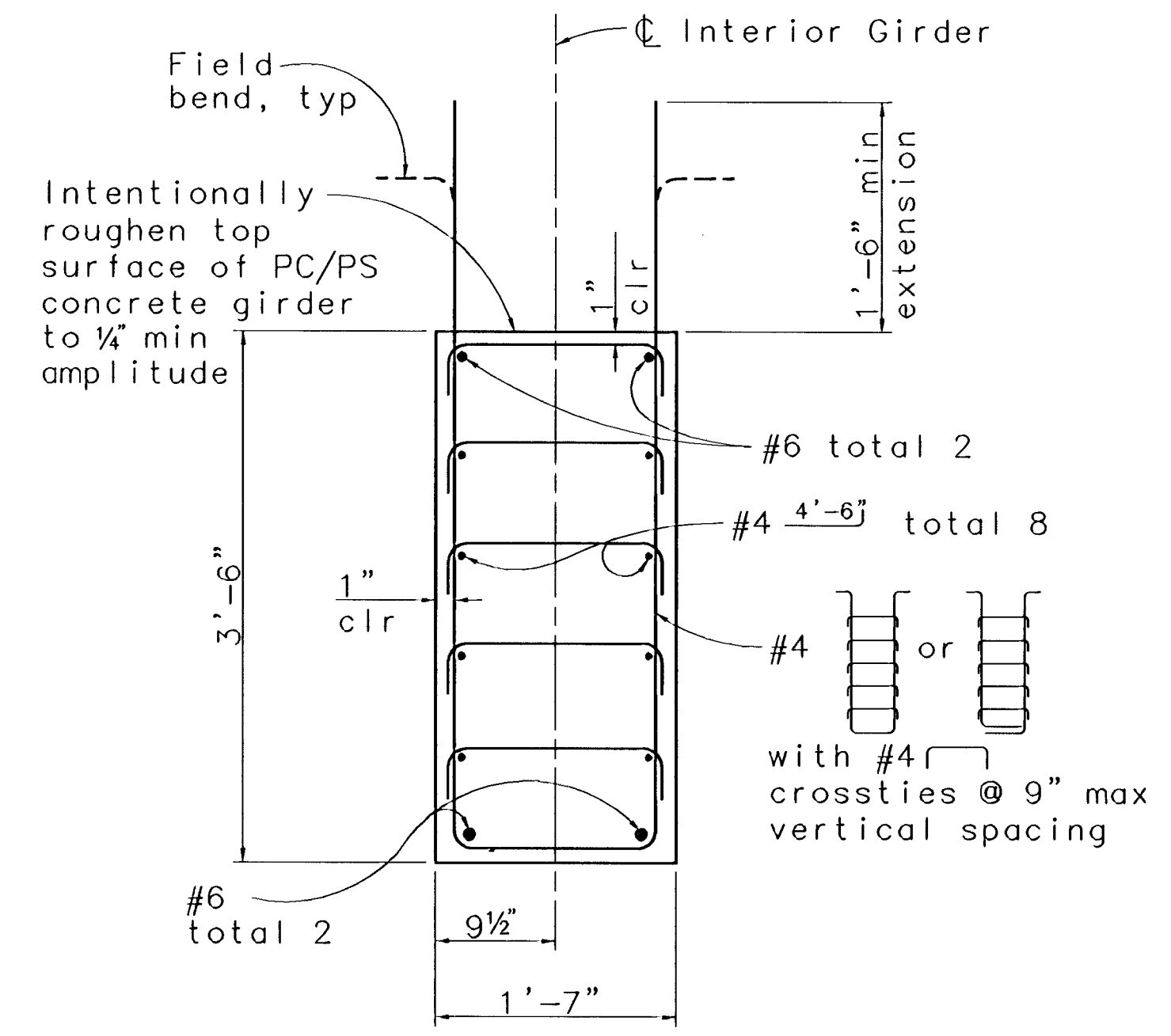
SHADY WILLOW LANE BRIDGE
BRENTWOOD CALIFORNIA

SHEET NUMBER	
S-9	
OF	SHEETS
DRAWING NO.	
2002300-9	

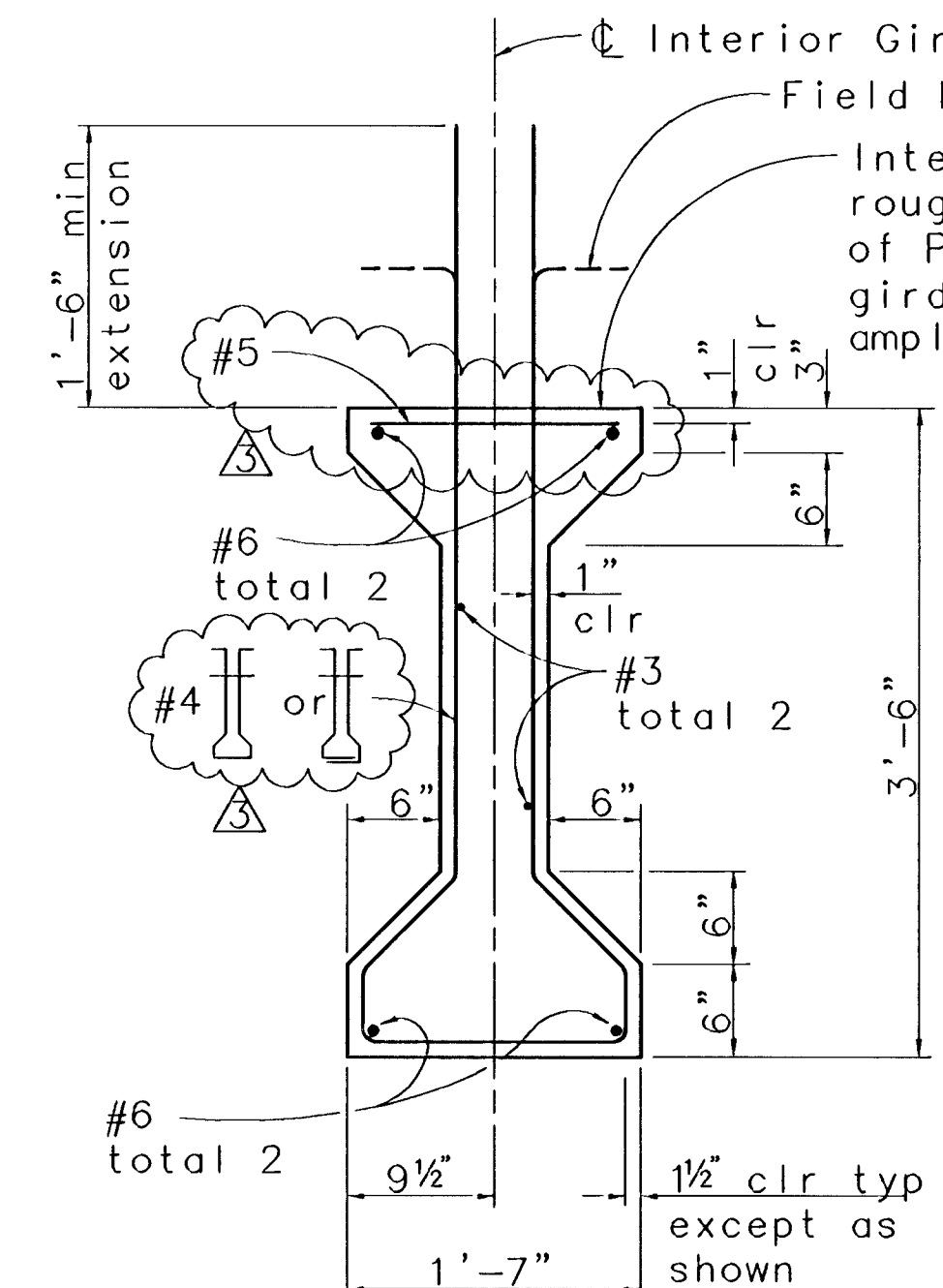
AS BUILT 3/28/01

8603

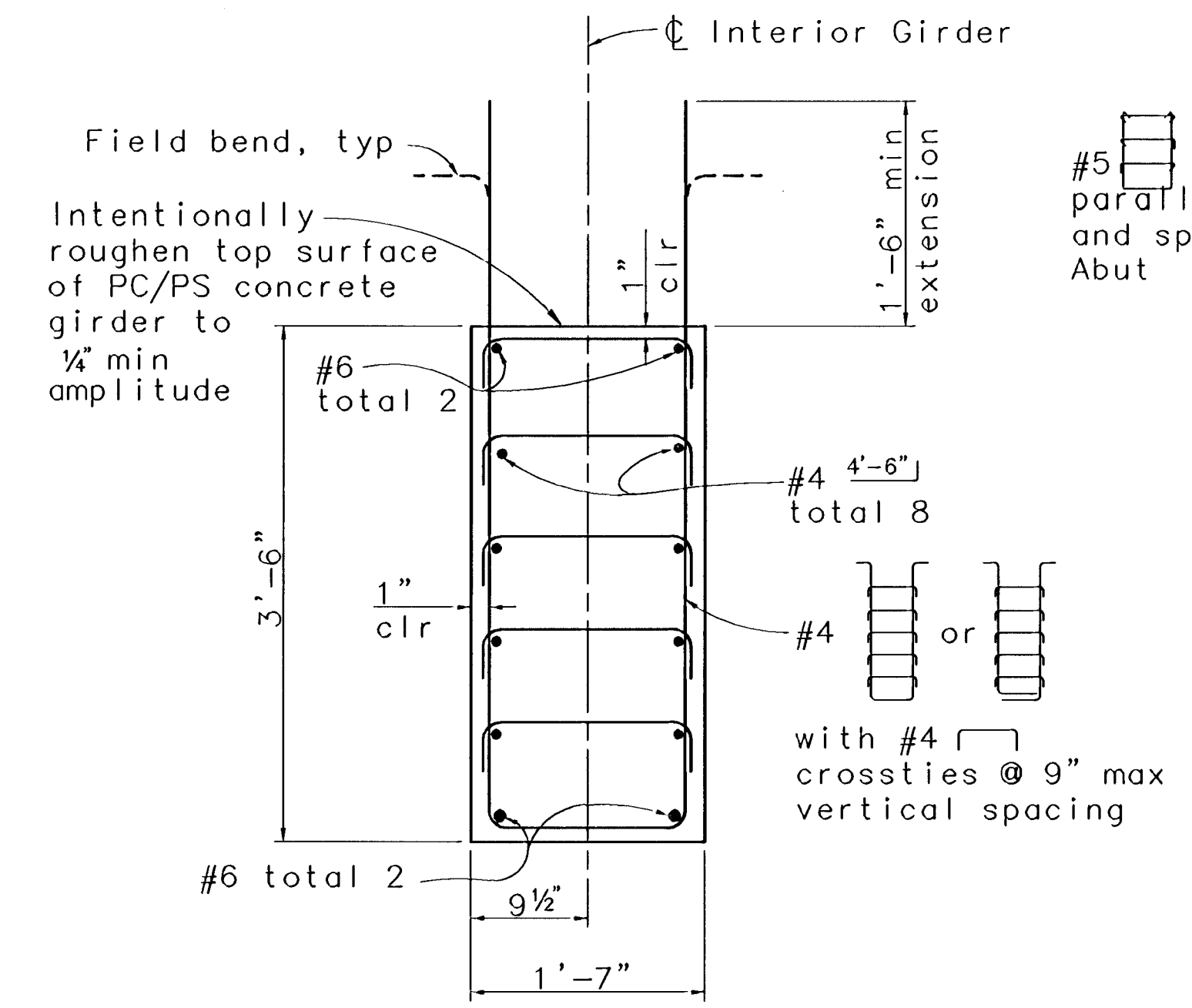
$$\frac{1}{14}$$



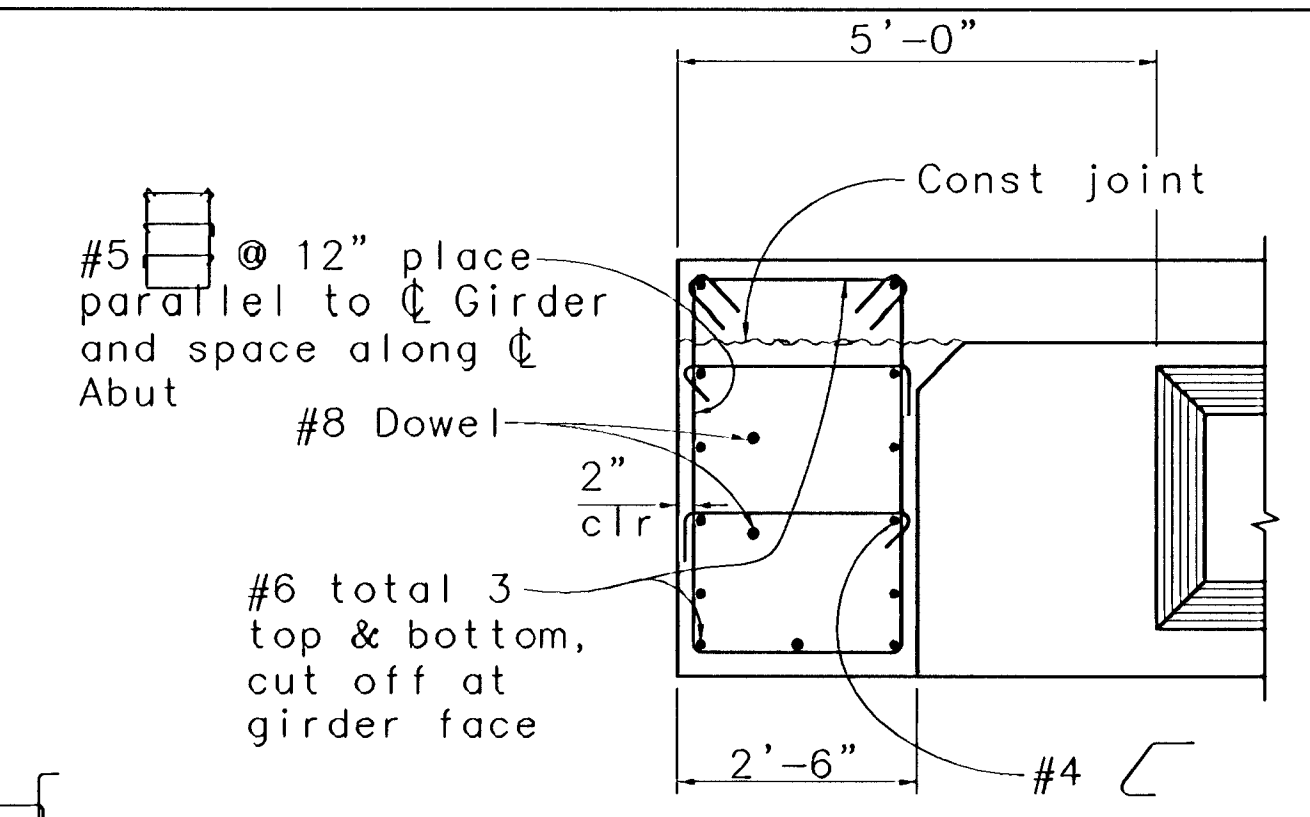
INTERIOR GIRDER
(AT ANCHORAGE)
SECTION A
1" = 1'-0" S10



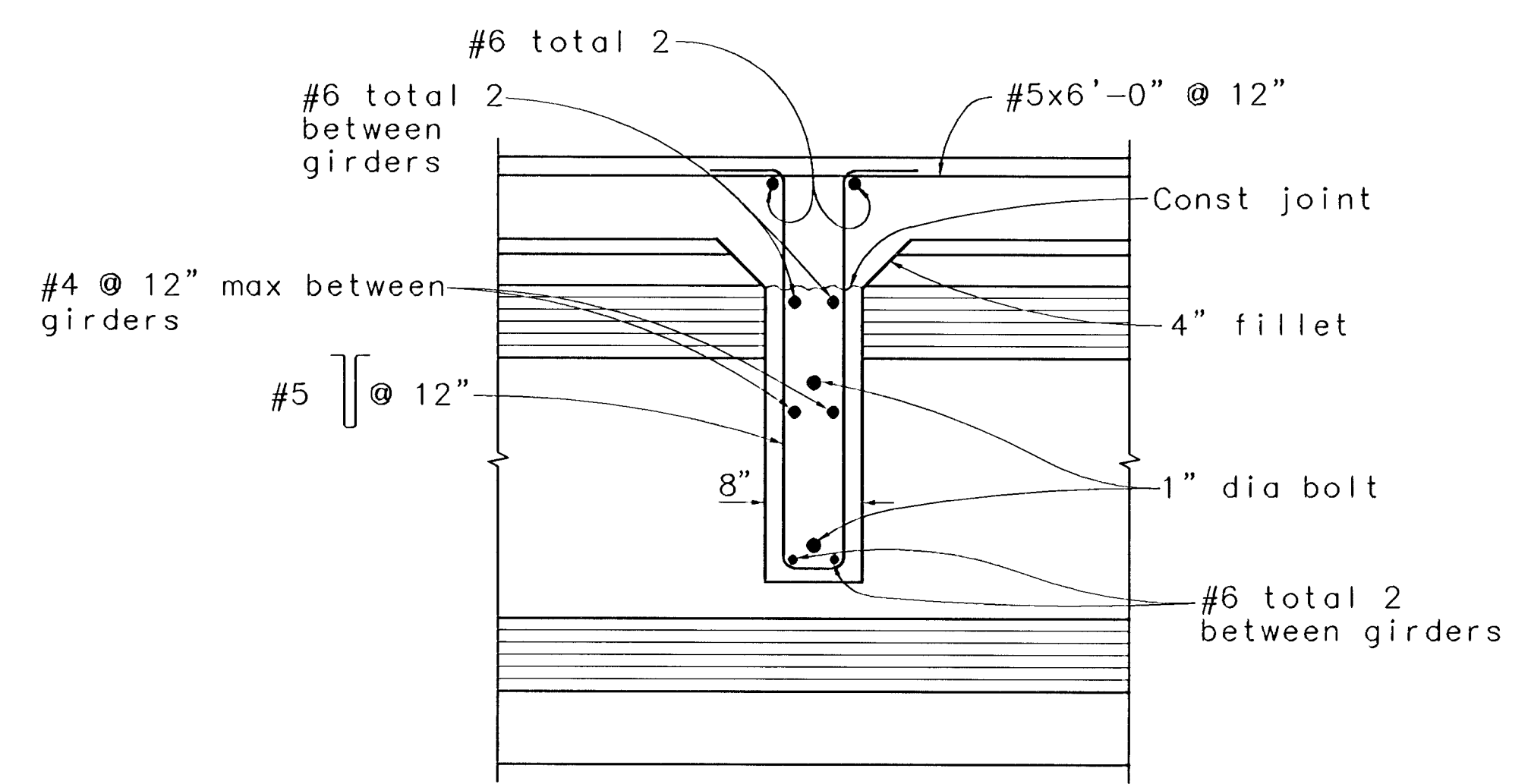
INTERIOR GIRDER
(AT MIDSPAN)
SECTION B
1" = 1'-0" S10



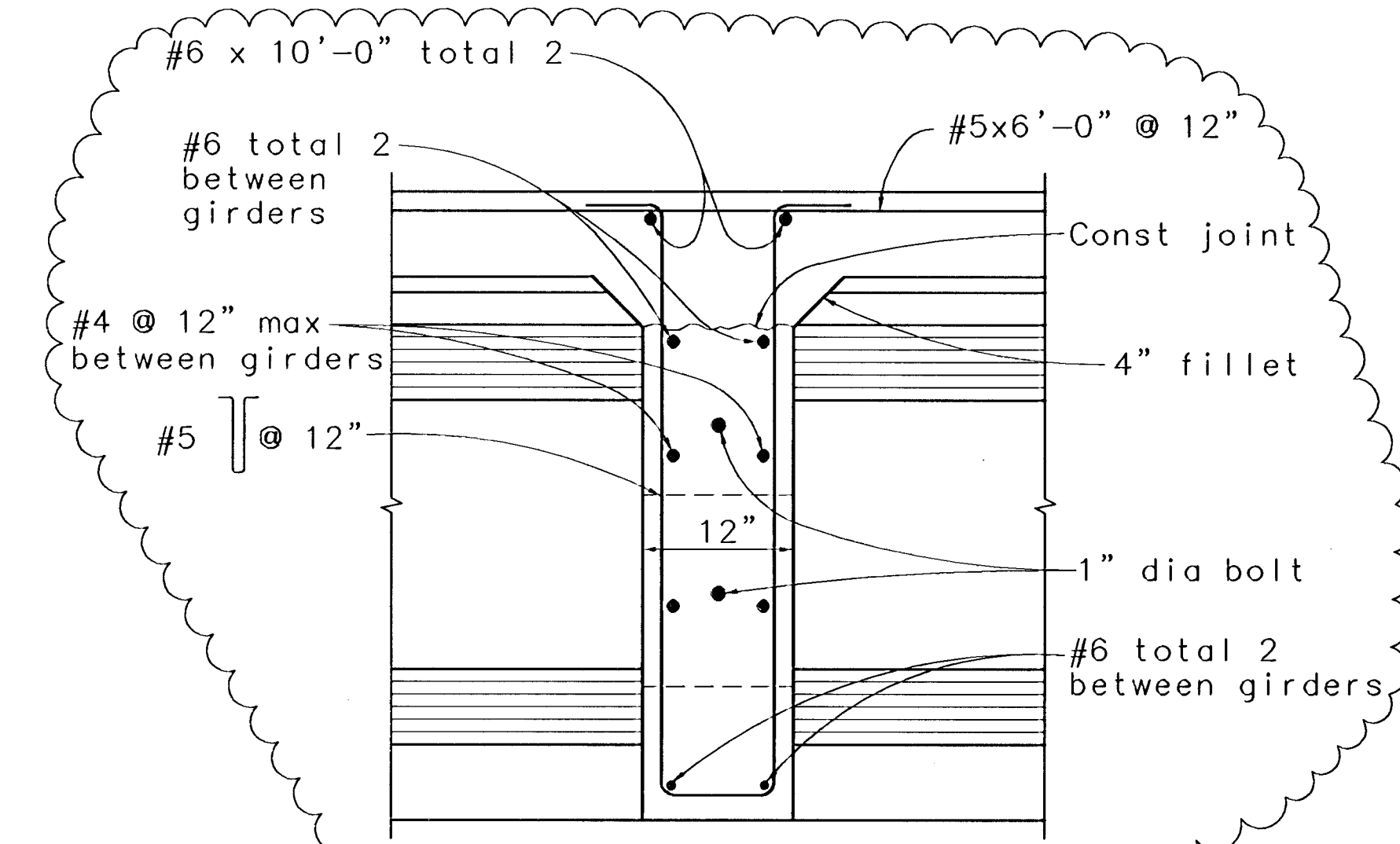
EXTERIOR GIRDER
(AT ANCHORAGE)
SECTION C
1" = 1'-0" S10



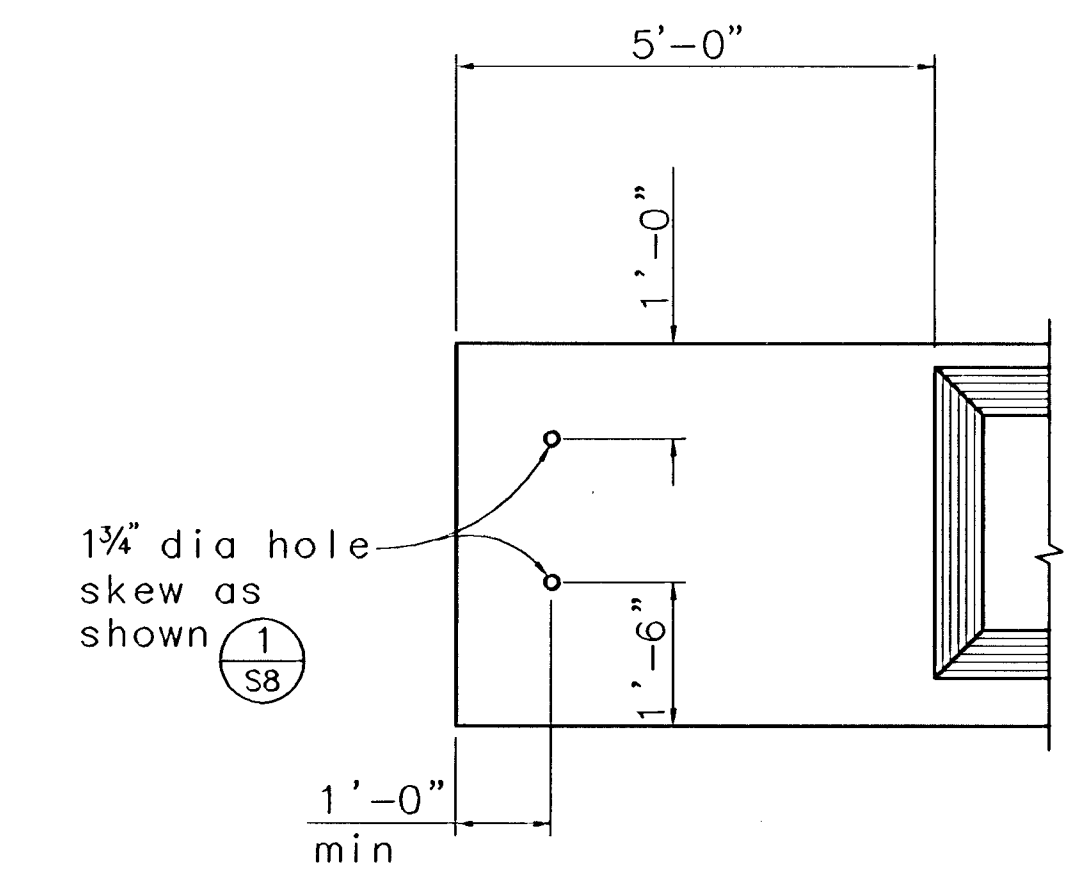
SECTION D
1/2" = 1'-0" S10



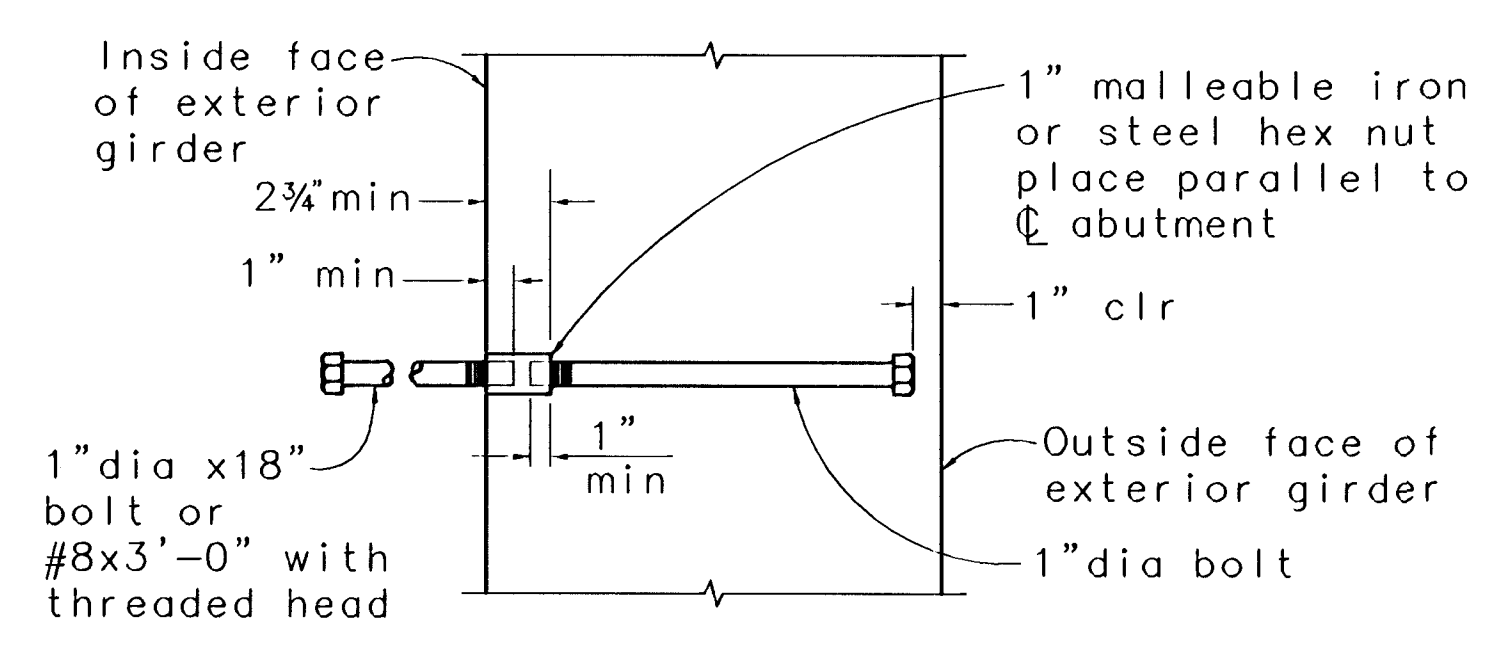
SECTION E
1" = 1'-0" S10



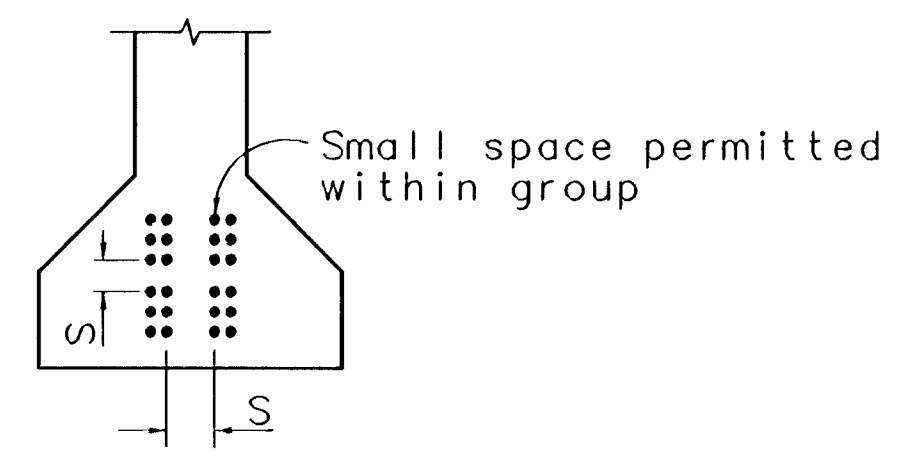
SECTION F
1" = 1'-0" S10



ABUTMENT END DETAIL
1/2" = 1'-0" S10



INSERT ASSEMBLY DETAIL
1 1/2" = 1'-0" S10



1. Strands may be bundled in groups consisting of 3 vertically 2 horizontally, and separated at the ends.
2. The min distance "S" between groups or individual strands is 1 1/2" for 3/8" strands, 1 1/4" for 7/8" and 1" strands and 2" for 0.6" strands.
3. "S" is measured between centers of adjacent strands.
4. Approval of Engineer is required for deviation.

CLEARANCES FOR PRETENSIONED STRANDS
NO SCALE

NO CHANGES
RECORD DRAWING
BY: *R. H. H.* DATE: 3/28/07

DESIGNED BY: JAA	DRAWN BY: SHH
CHECKED BY: N/A	SCALE: AS SHOWN
APPROVED BY: N/A	BY: N/A
REV. DATE	DESCRIPTION
0 11/20/03	REVISED GIRDER STIRRUP
1 11/20/03	REVISED UTILITY SUPPORT
2 11/20/03	100% FINAL SUBMITTAL
3 01/20/04	100% DRAFT (UNCHECKED DETAILS)

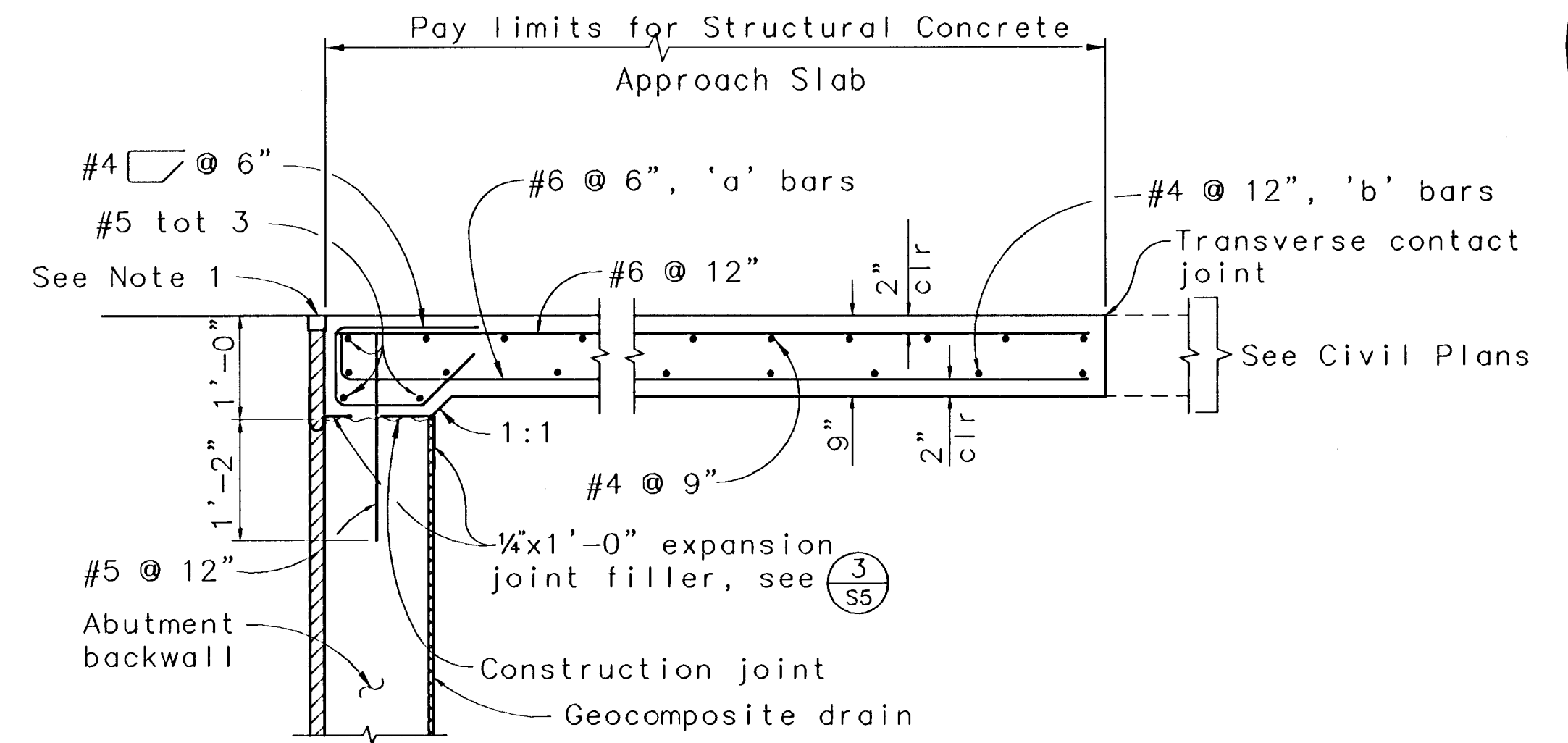
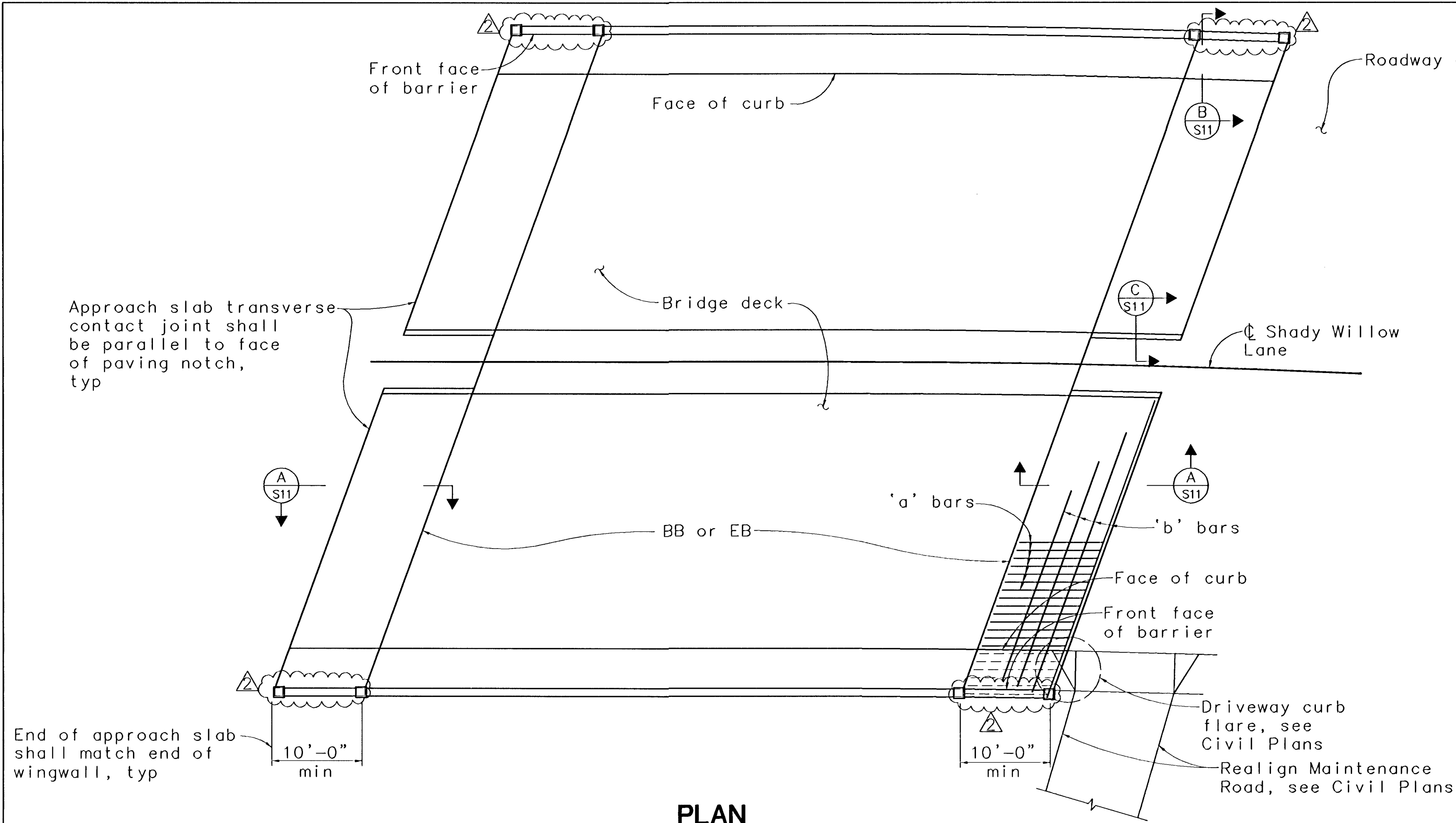
BIGGS CARDOSA ASSOCIATES, INC.
STRUCTURAL ENGINEERS
1871 The Alameda, Suite 200
San Jose, California 95126
408-286-5515

PC/PS GIRDER DETAILS No. 2

SHADY WILLOW LANE BRIDGE
CALIFORNIA
BRENTWOOD

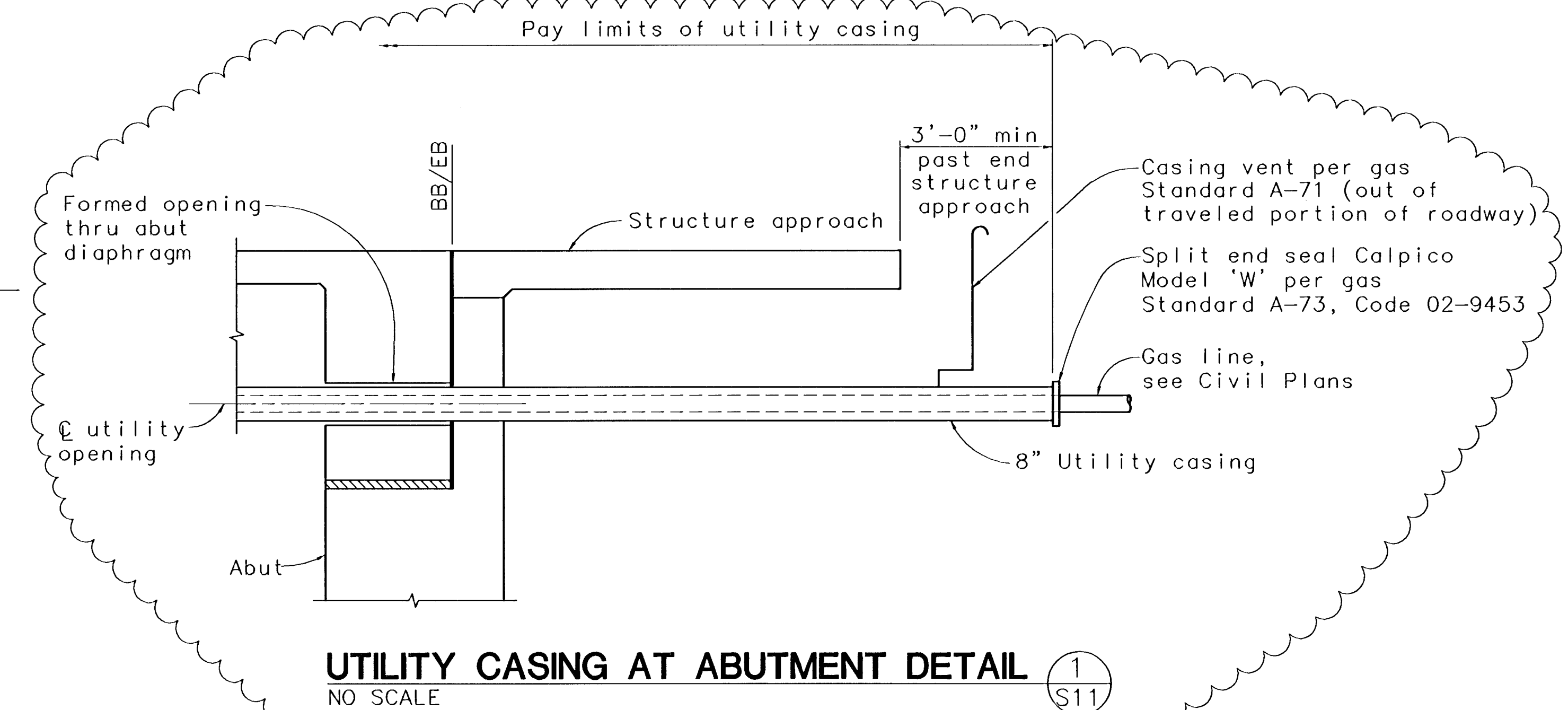
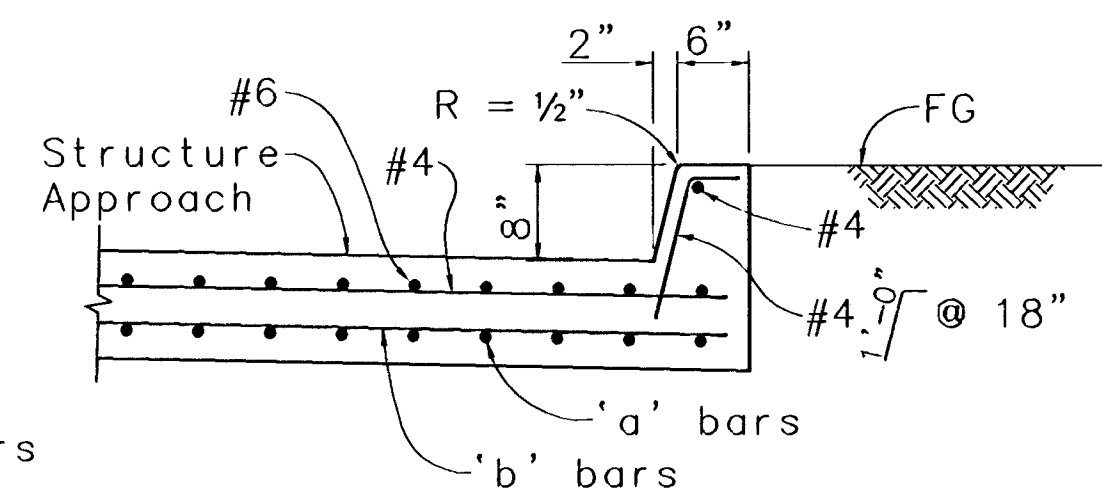
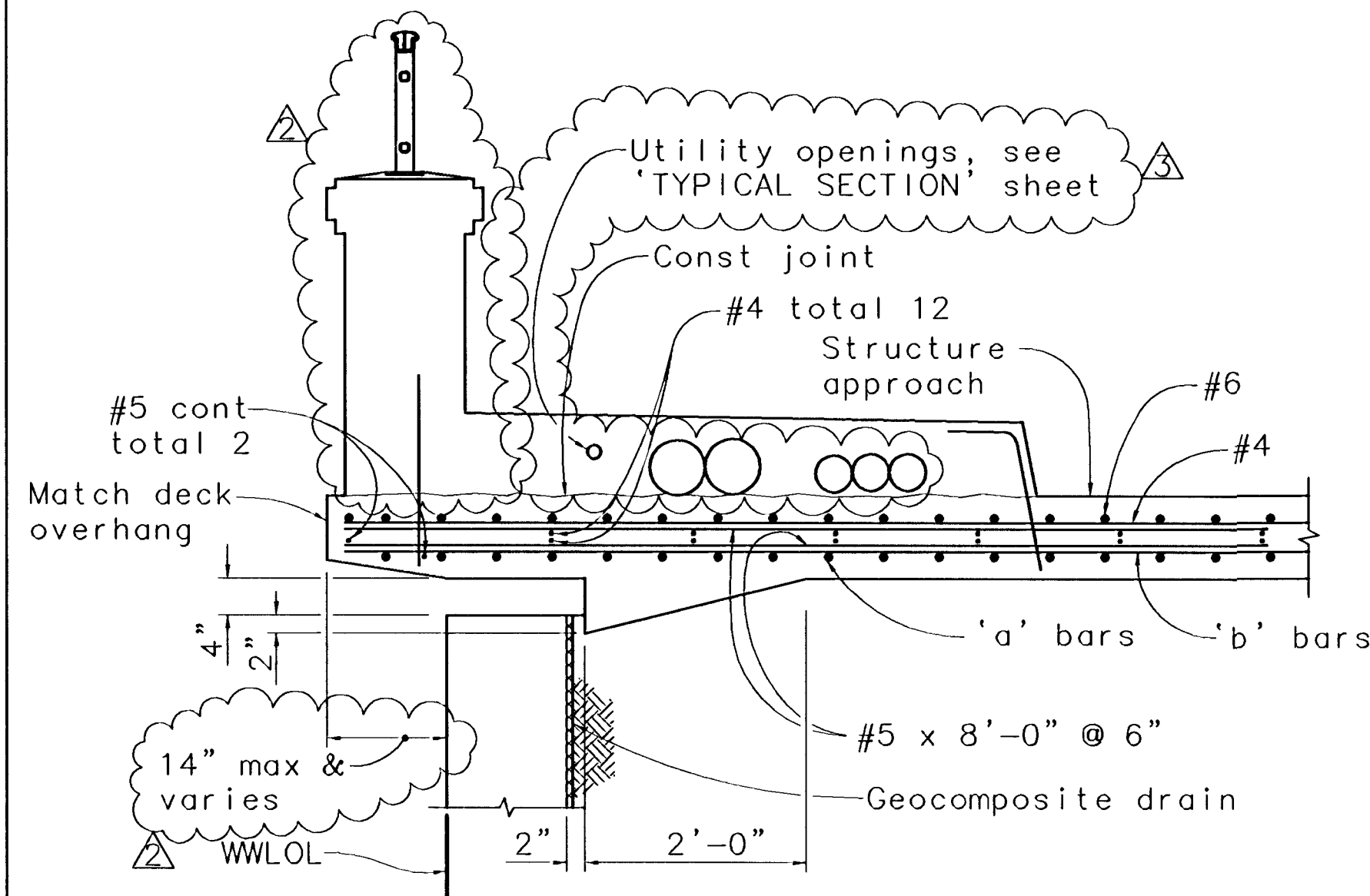
SHEET NUMBER
S-10
OF SHEETS
DRAWING NO.
2002300-10

2002300



Notes:

- For details not noted or shown, see 'ABUTMENT LAYOUT' and 'ABUTMENT DETAILS' sheets. Adjust bar reinforcement to clear sawcut for sealed joint, when required.
- Approach slab transverse reinforcement shall be placed parallel to paving notch. Spacing of transverse reinforcement is measured along ϕ roadway.



NO CHANGES

RECORD DRAWING

DATE: 3/28/07

		DESIGNED BY: JAA DRAWN BY: KEH CHECKED BY: DHN SCALE: AS SHOWN APPROVED BY: BY REV/DATE:
BIGGS CARDOSA ASSOCIATES, INC. STRUCTURAL ENGINEERS 1871 The Alameda, Suite 200 San Francisco, CA 94133 415-398-5515		SHADY WILLOW LANE BRIDGE BRENTWOOD CALIFORNIA SHEET NUMBER S-11 OF SHEETS DRAWING NO. 2002300S11

